

Fig. 1

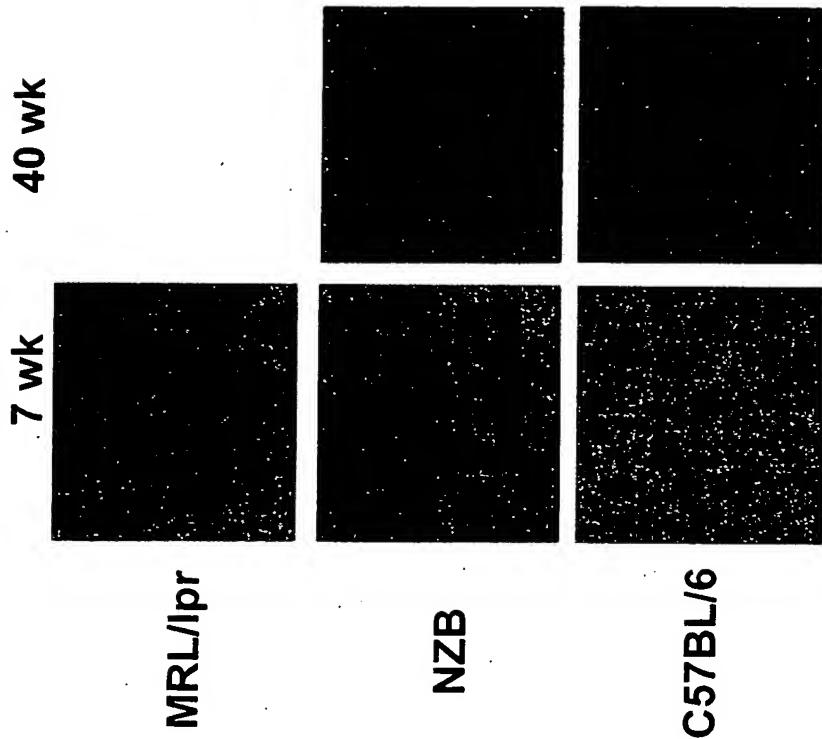


Fig. 2

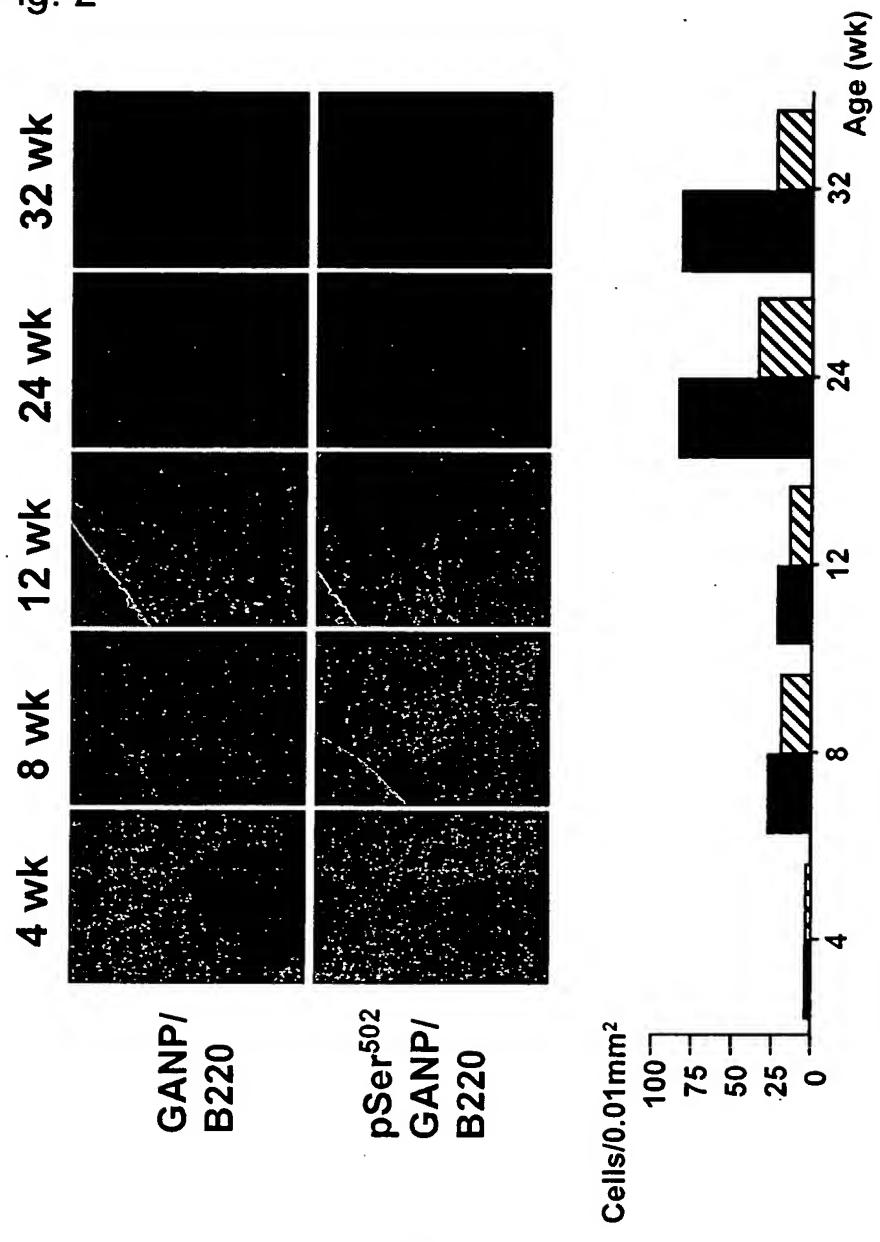


Fig. 3

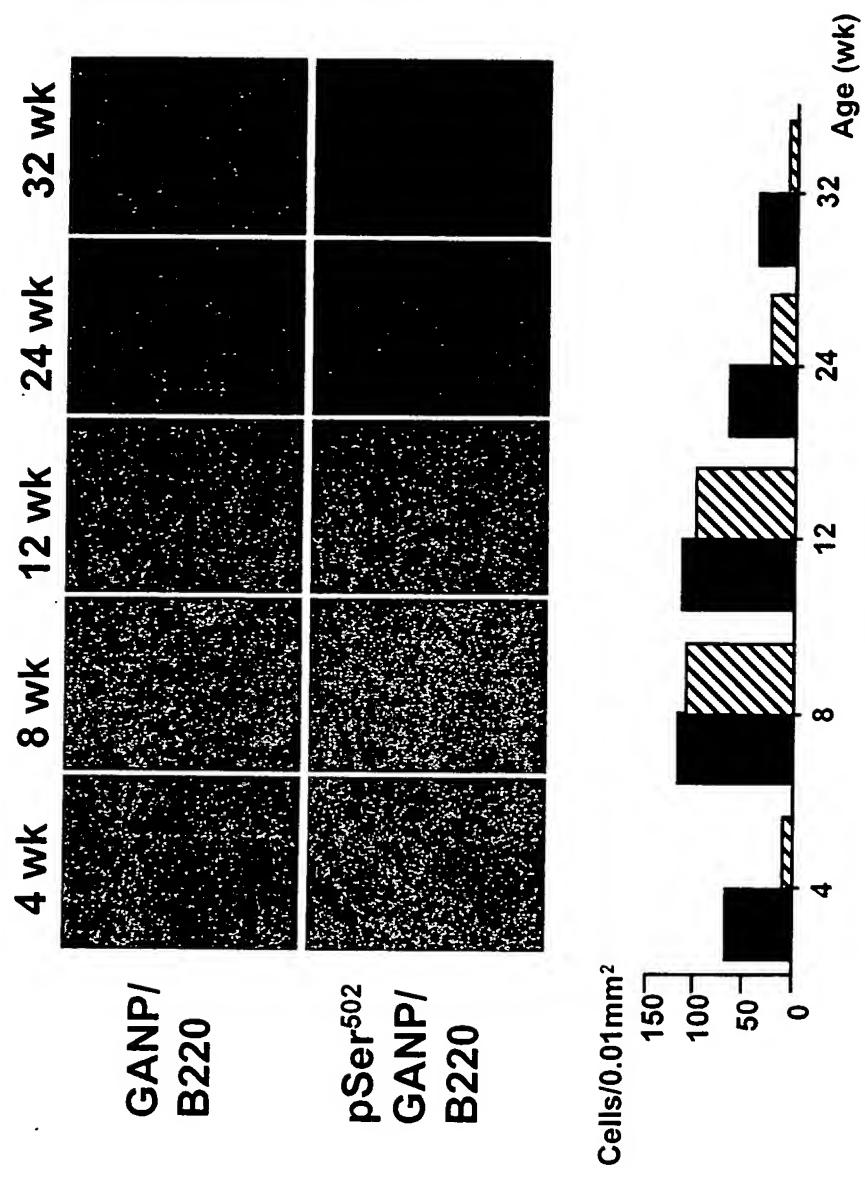


Fig. 4

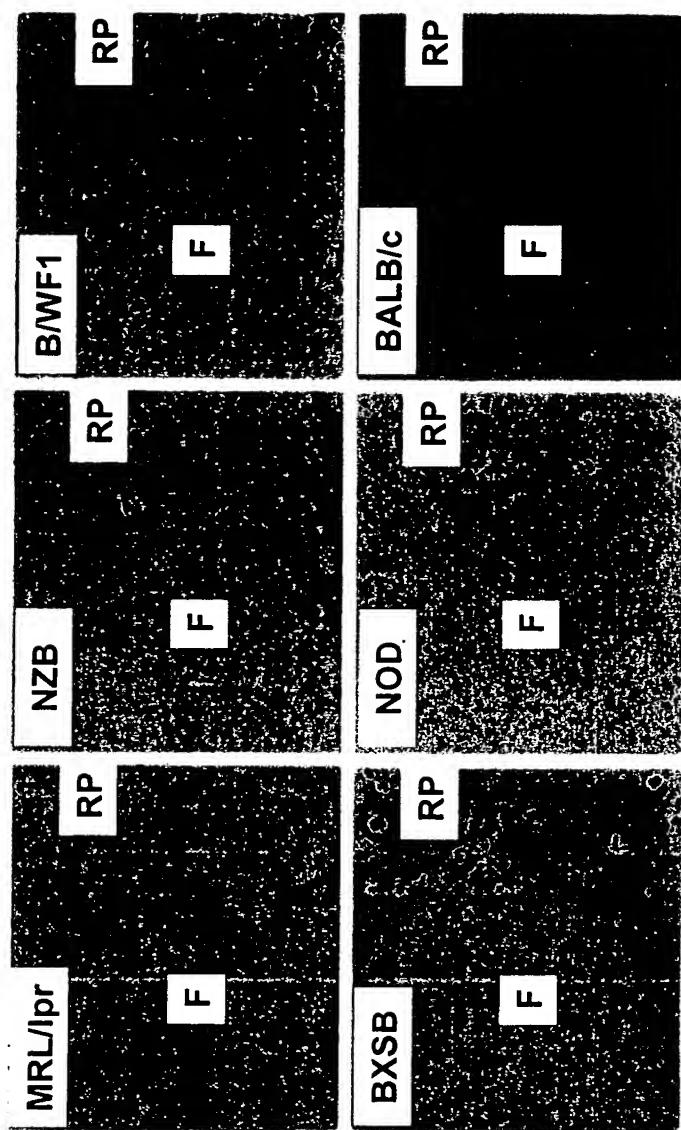


Fig. 5

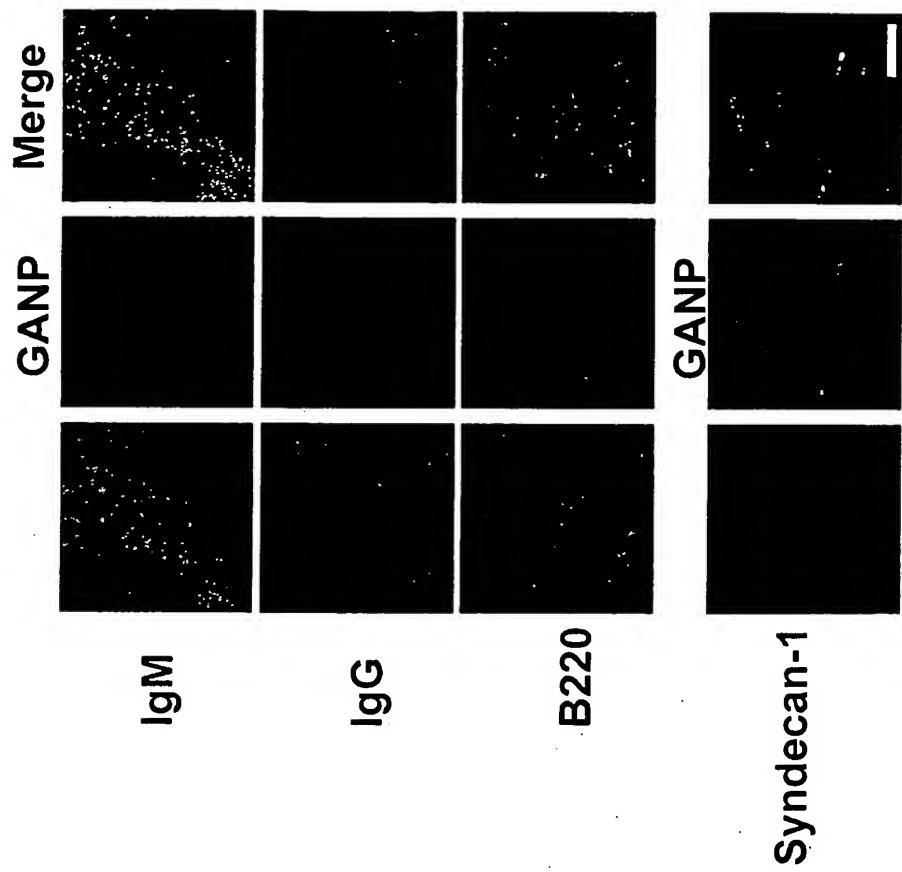


Fig. 6

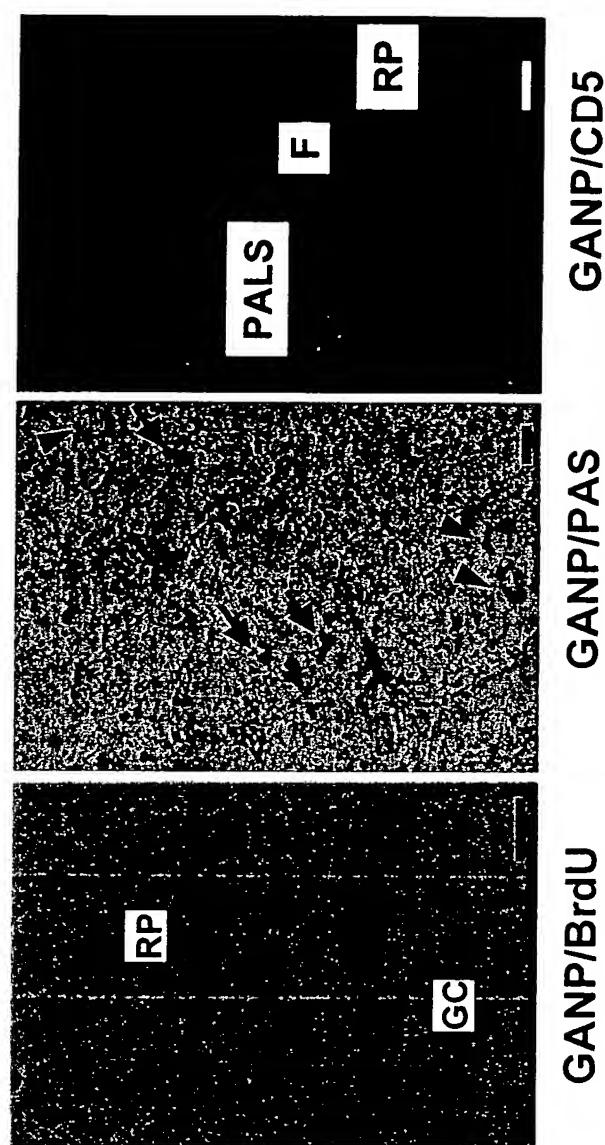


Fig. 7

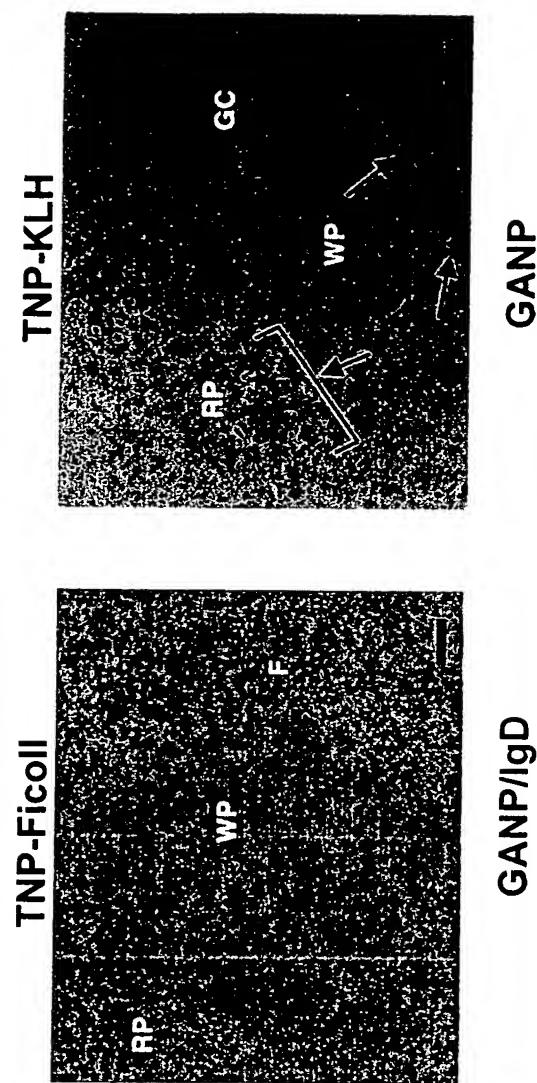


Fig. 8A

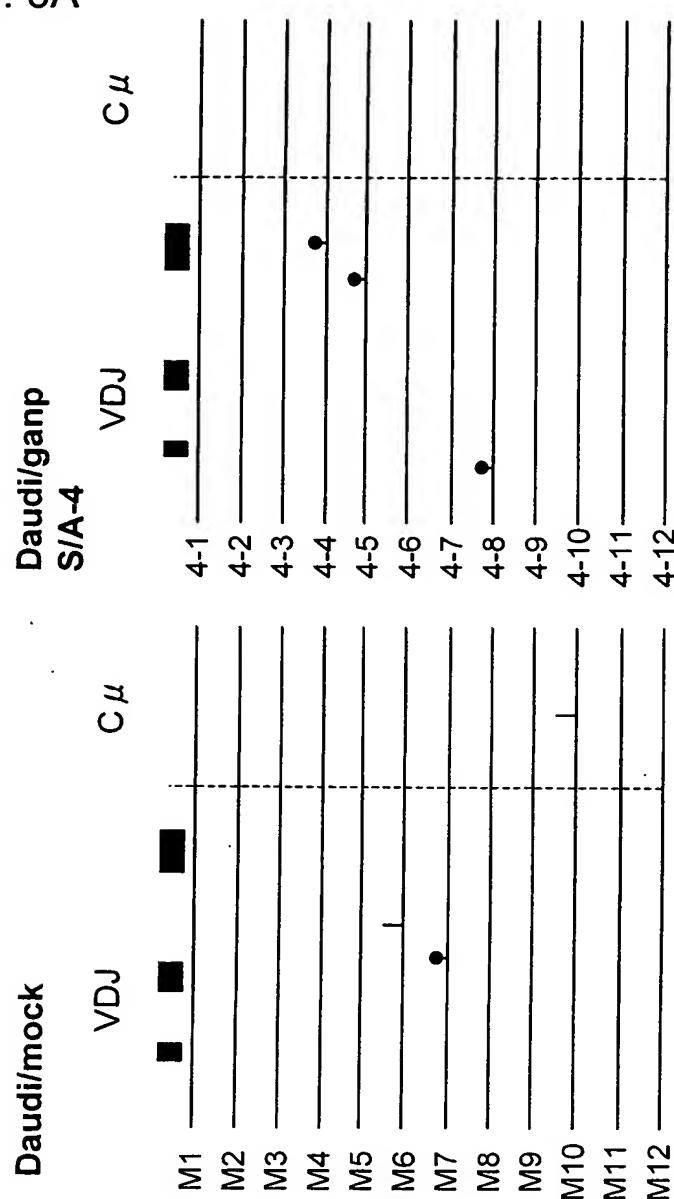


Fig. 8B

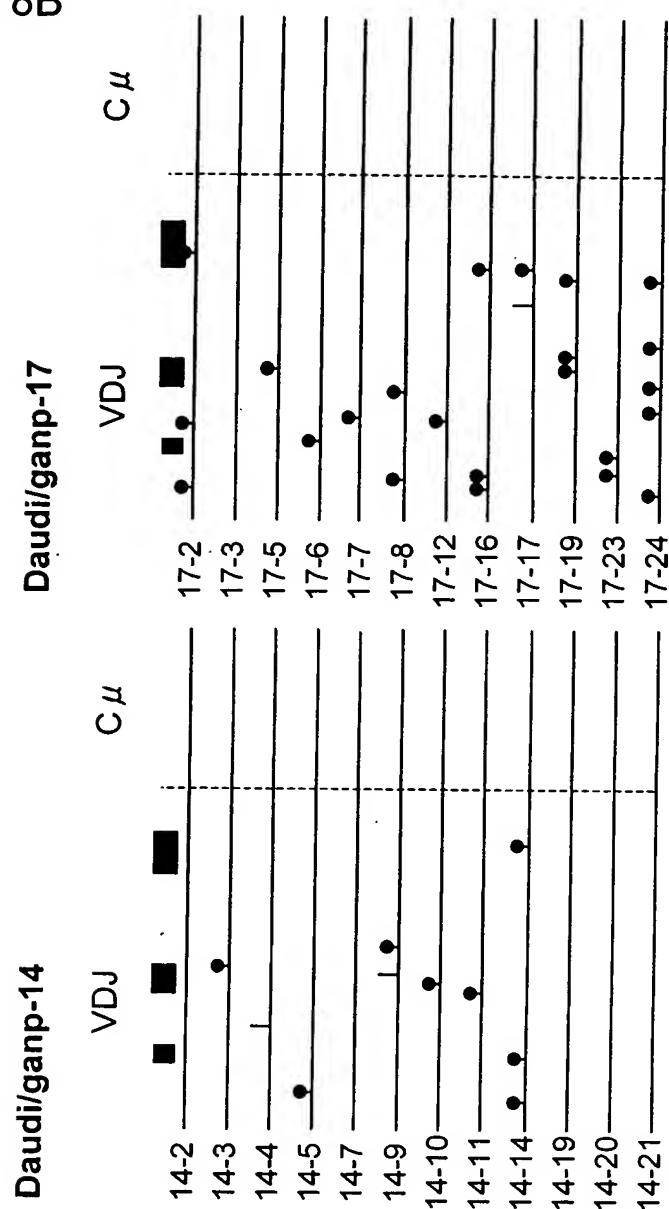


Fig. 8C

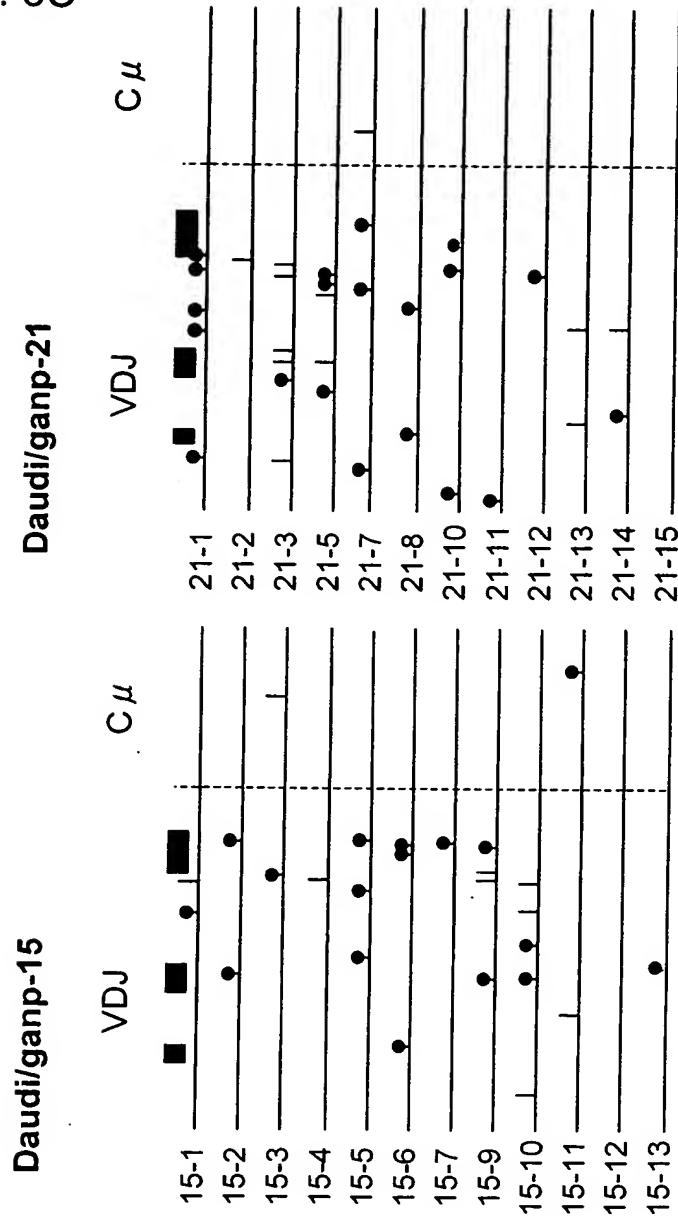


Fig. 9A

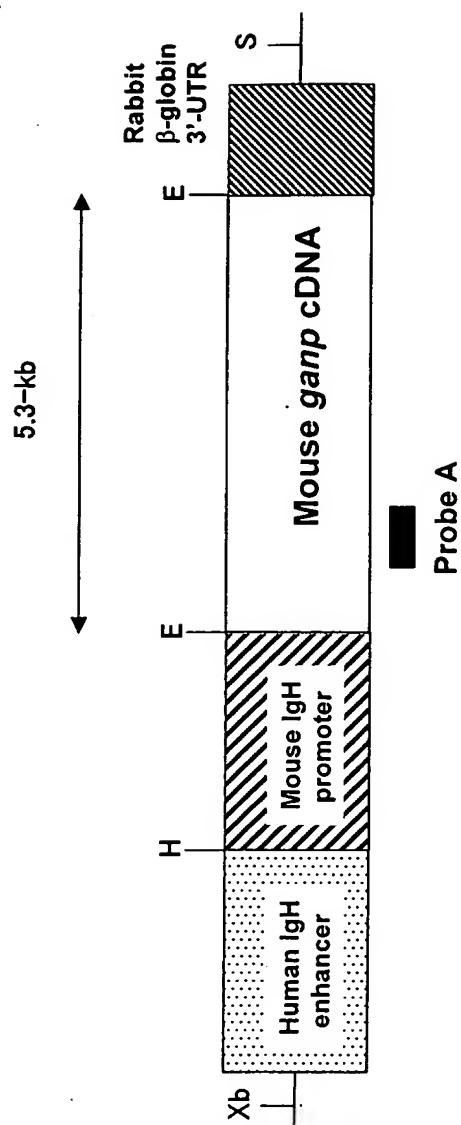


Fig. 9B

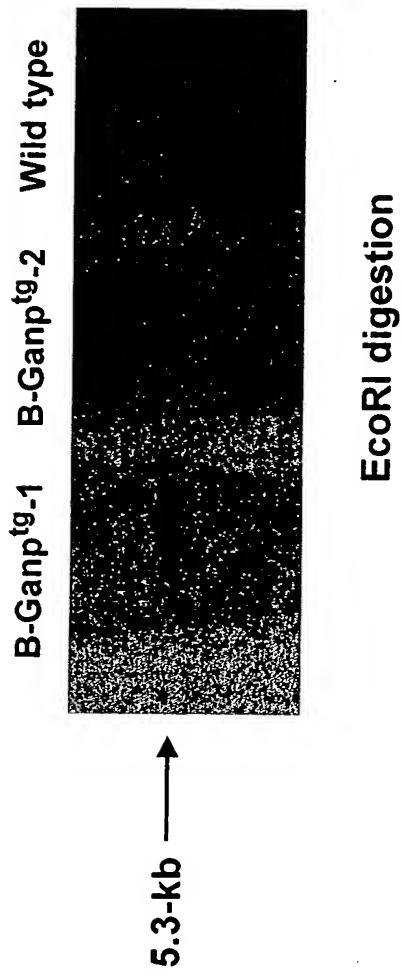


Fig. 9C

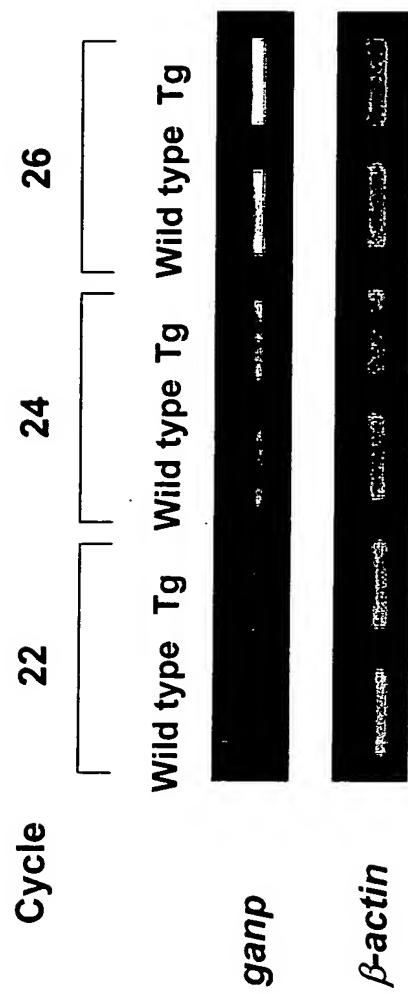


Fig. 10

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Q	V	Q	L	Q	Q	P	G	A	E	L	V	K	P	G	A	S	V	K	L	S	C	K	A	S	G	Y	T	F	T	
CAG	GTC	CAA	GTC	CAG	CAG	CCT	GGG	GCT	GAG	CCT	GTC	AGG	GCT	GGG	GCT	TA	GTC	AGG	GCT	TCG	TCC	TCC	AGG	GCT	TCT	GSC	TAC	ACC	TTC	ACC
WT-4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
WT-22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	

WT  
14/69

## CDR1

31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
S	W	N	H	W	V	K	Q	R	P	G	R	G	L	E	W	I	G	R	I	D	P	N	S	G	G	T	K	Y	N	E	K	P	S		
PSC	TAC	TGG	ATG	CAC	TGG	ATG	CAG	CAG	AGG	AGG	CTT	CTT	GAG	TGG	ATT	GGA	AGG	ATT	GAT	CCT	ATG														
-T-	-TA-	-L-	-T-																																
I	L	-TA	L	G	G	I	-TA	A	M	A	-TA	A	-TA	-A																					

15/69

Fig. 10 continued 2

Fig. 10 continued 3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Q	V	Y	Q	L	Q	P	G	A	E	L	V	K	P	G	A	S	V	K	L	S	C	K	A	S	G	Y	T	F	T	
CAG	GTC	CTG	CTG	CAG	CAG	CTG	CTG	GCT	GAG	CCT	GTC	AAG	CCT	GCT	GGG	GGT	TCA	GTC	AAG	CCT	TCA	GCT	AAG	GCT	TCA	ACC	TTC	ACC	TAC	
Tg-3																														
Tg-4																														
Tg-5																														
Tg-7																														
Tg-8																														
Tg-9																														
Tg-10																														
Tg-11																														
Tg-12																														
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Tg-17																														
Tg-18																														
Tg-19																														
Tg-20																														
Tg-21																														
Tg-23																														

Tg

Fig. 10 continued 4

Fig. 10 continued 5

67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98
K	A	T	L	T	V	D	K	P	S	S	T	A	Y	M	Q	L	S	S	L	T	S	E	D	S	A	V	Y	C	A	R	
GCC	ACA	CCTG	ACT	GTA	GAC	AAA	CCC	TCC	AGC	ACA	GCC	TTC	ATG	CAG	CTC	AGC	AGC	CTG	ACA	TCT	GCG	GTC	TCT	GTC	TAT	TAT	TGT	GCA	AGA		

Fig. 11A

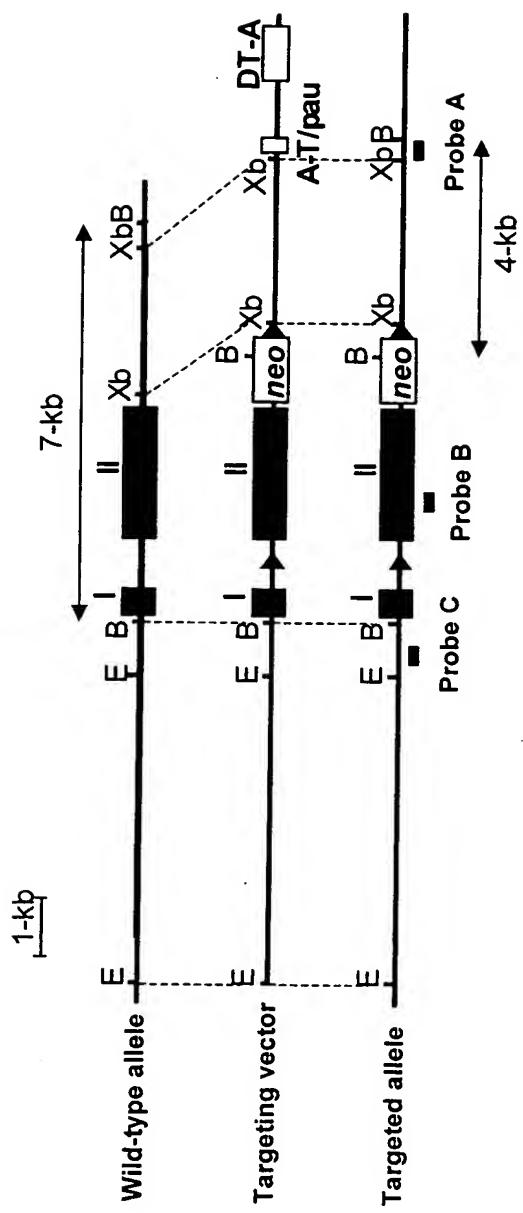


Fig. 11B

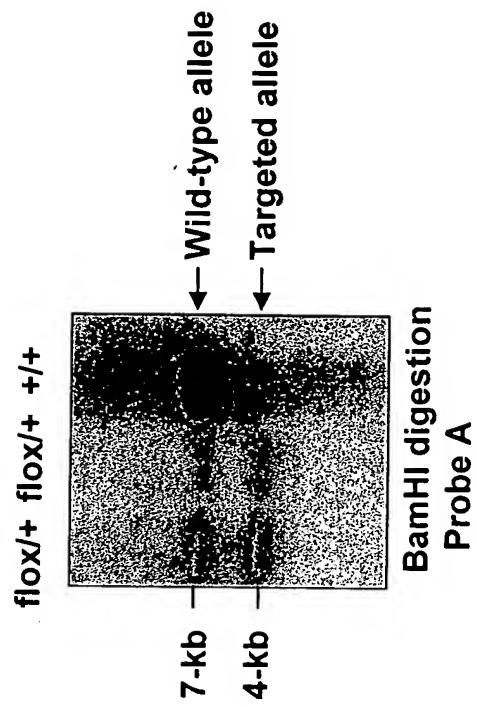


Fig. 11C

Agarose gel electrophoresis image showing DNA bands for B-Ganp-/-, B-Ganp+/-, and B-Ganp+/+ genotypes under BamHI and EcoRI/BamHI digestions with Probes B and C.

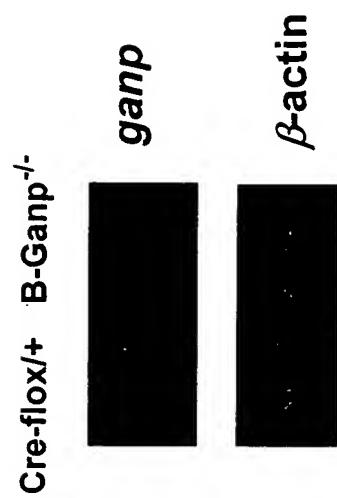
The gel has four lanes:

- BamHI digestion:**
  - Probe B:** Lanes show bands at approximately 4-kb and 0.8-kb.
  - Probe C:** Lanes show bands at approximately 4-kb and 0.8-kb.
- EcoRI/BamHI digestion:**
  - Probe B:** Lanes show bands at approximately 4-kb and 0.8-kb.
  - Probe C:** Lanes show bands at approximately 4-kb and 0.8-kb.

Genotype labels are placed to the left of the corresponding lanes:

- B-Ganp-/-:** Lanes 1 and 2 (BamHI, Probe B)
- B-Ganp+/-:** Lanes 3 and 4 (BamHI, Probe B)
- B-Ganp+/+:** Lanes 1 and 2 (BamHI, Probe C)
- B-Ganp+/+:** Lanes 3 and 4 (BamHI, Probe C)
- B-Ganp-/-:** Lanes 1 and 2 (EcoRI/BamHI, Probe B)
- B-Ganp+/-:** Lanes 3 and 4 (EcoRI/BamHI, Probe B)
- B-Ganp+/+:** Lanes 1 and 2 (EcoRI/BamHI, Probe C)
- B-Ganp+/+:** Lanes 3 and 4 (EcoRI/BamHI, Probe C)

Fig. 11D



10/534043

Fig. 11E

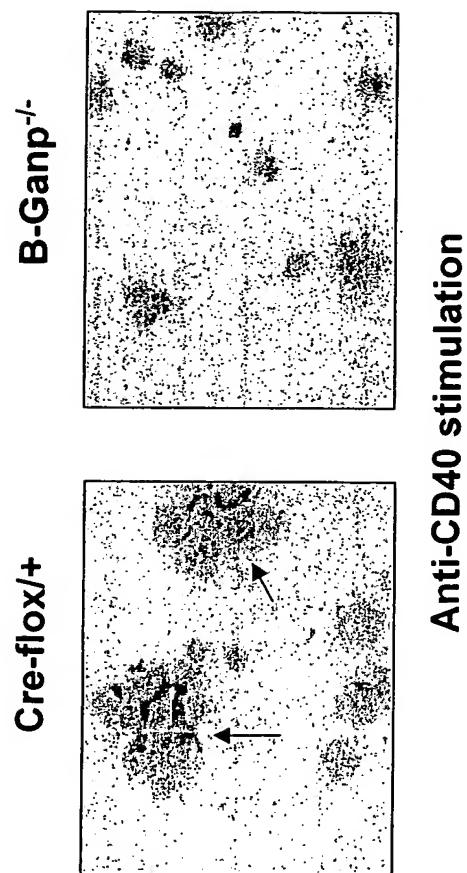


Fig. 12

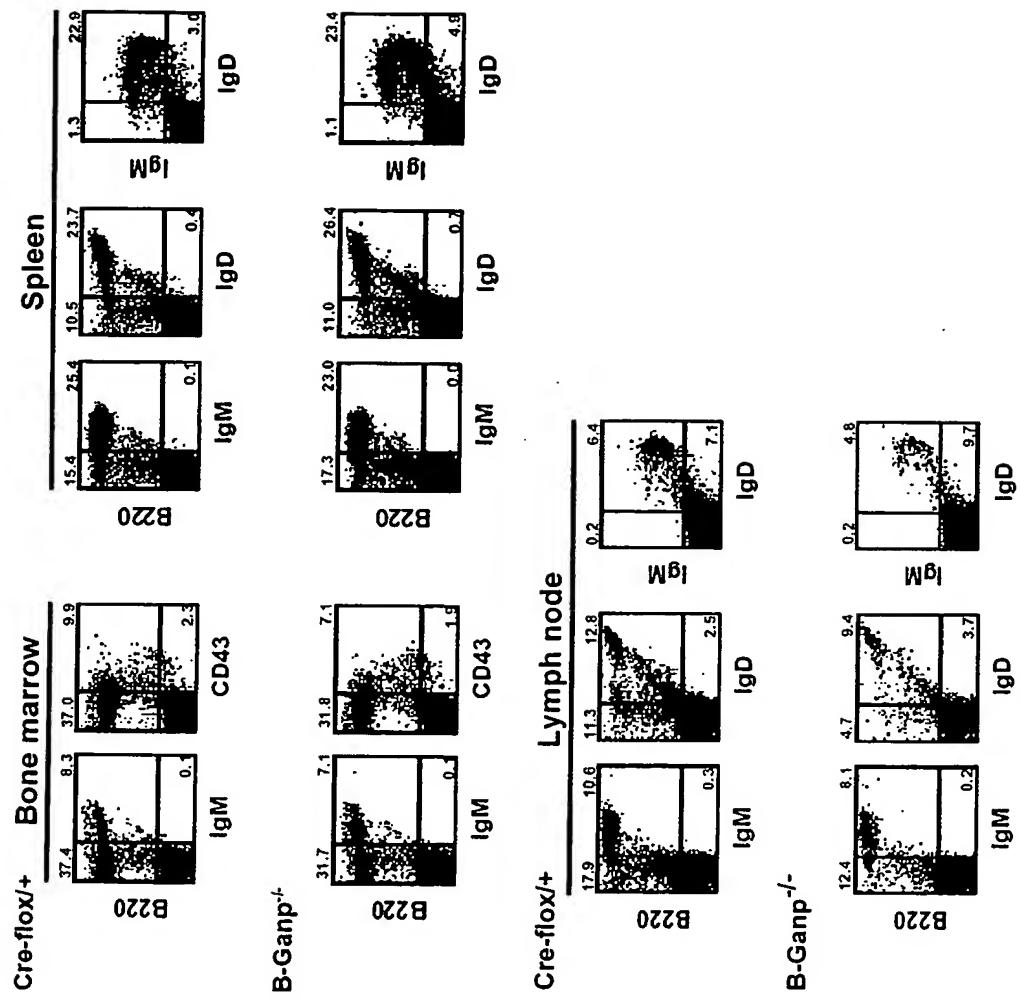


Fig. 13

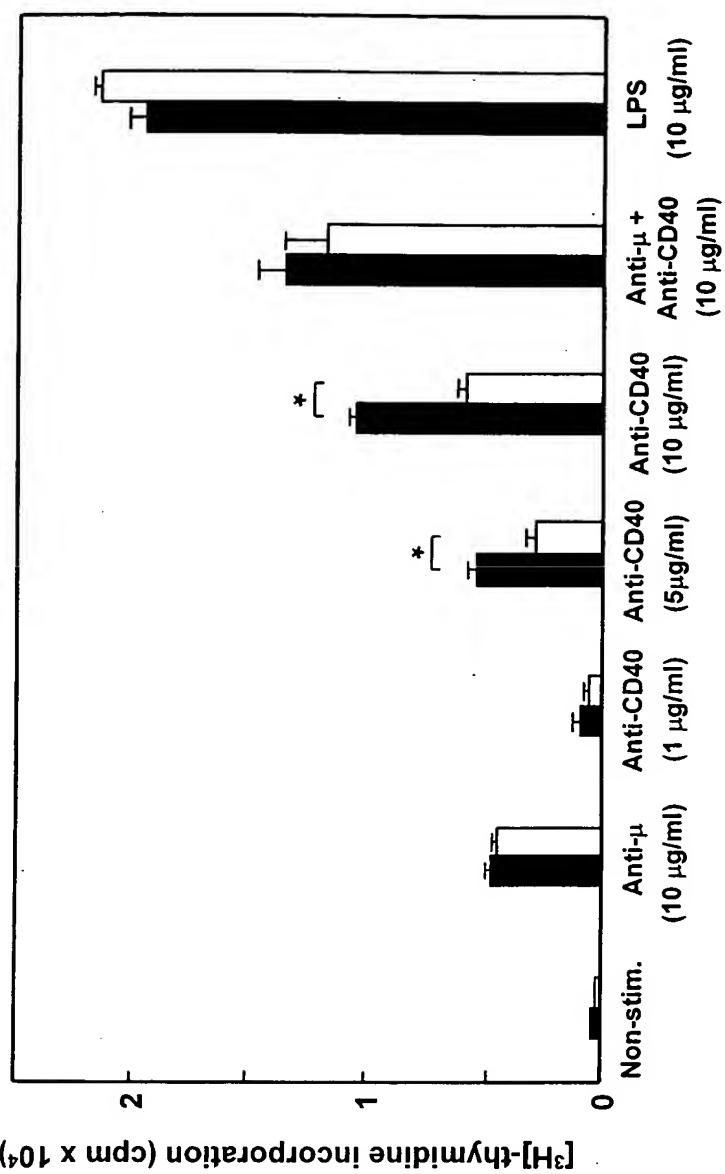


Fig. 14

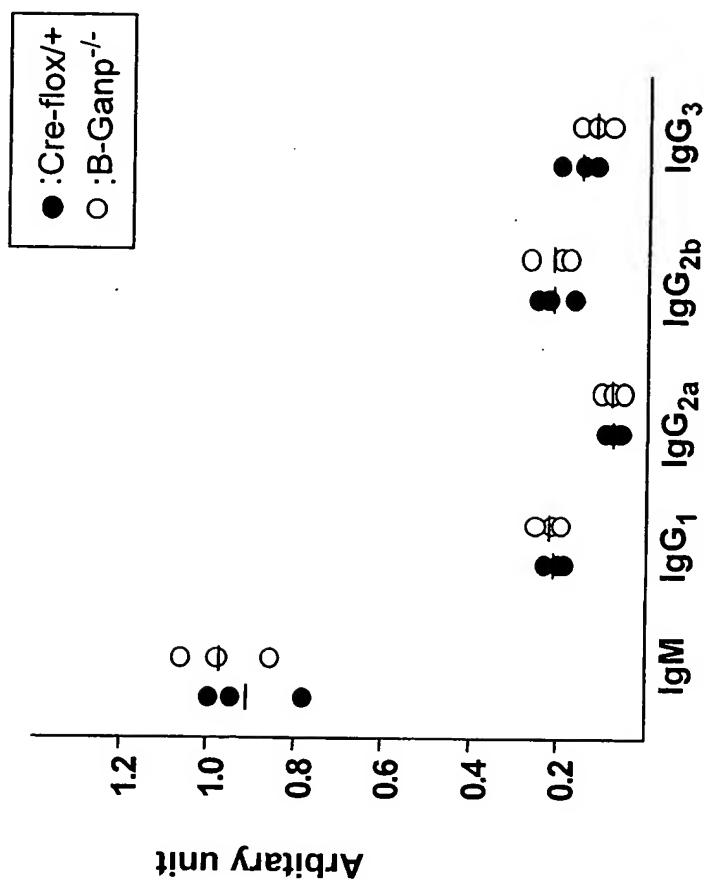


Fig. 15

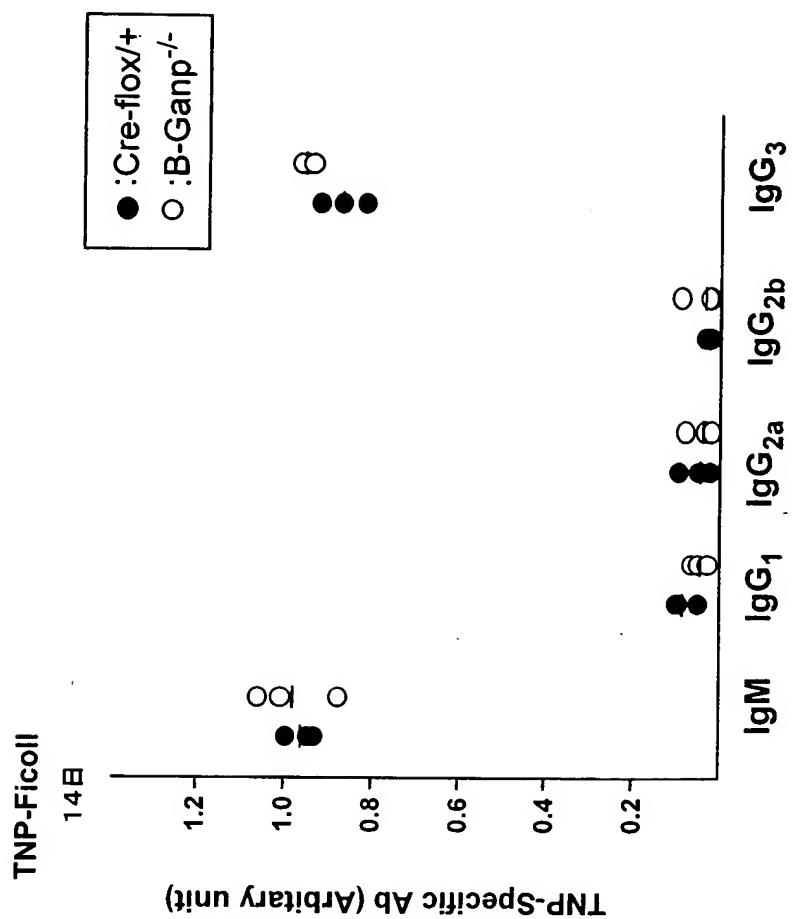


Fig. 16

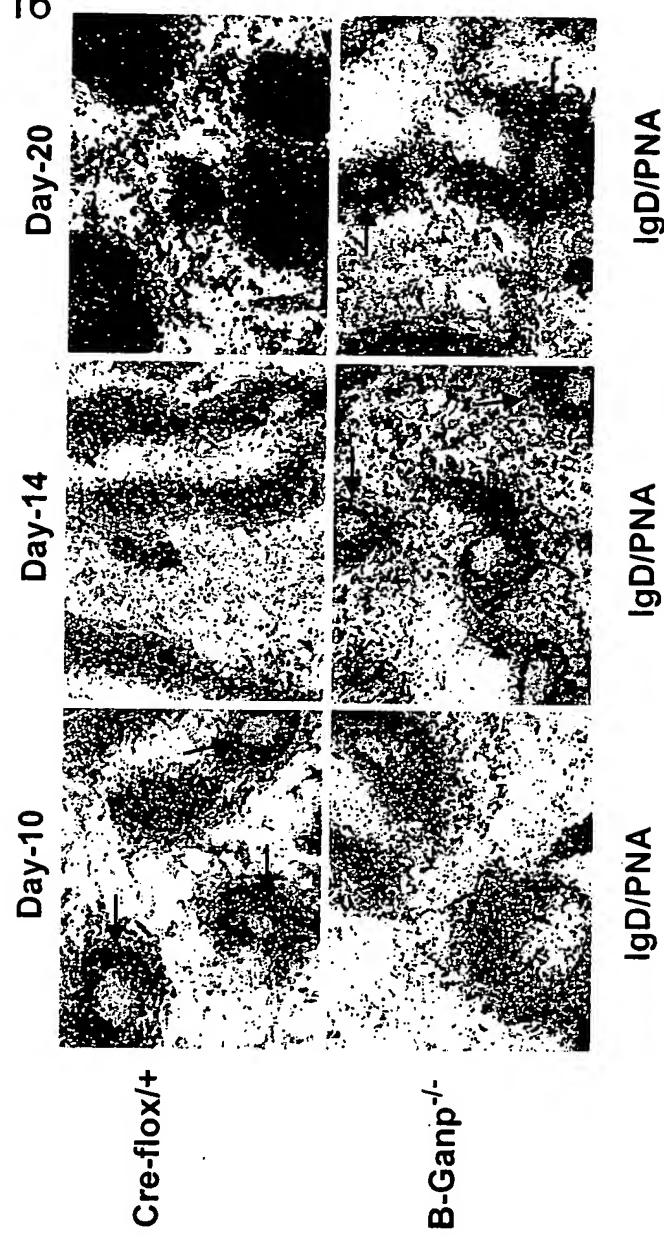


Fig. 17

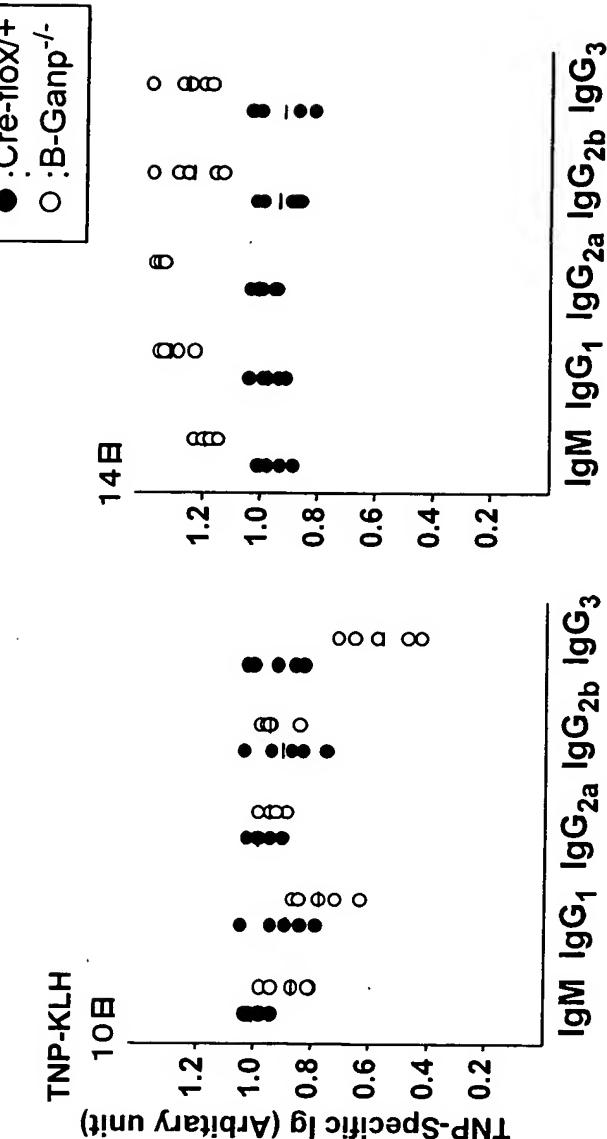


Fig. 18

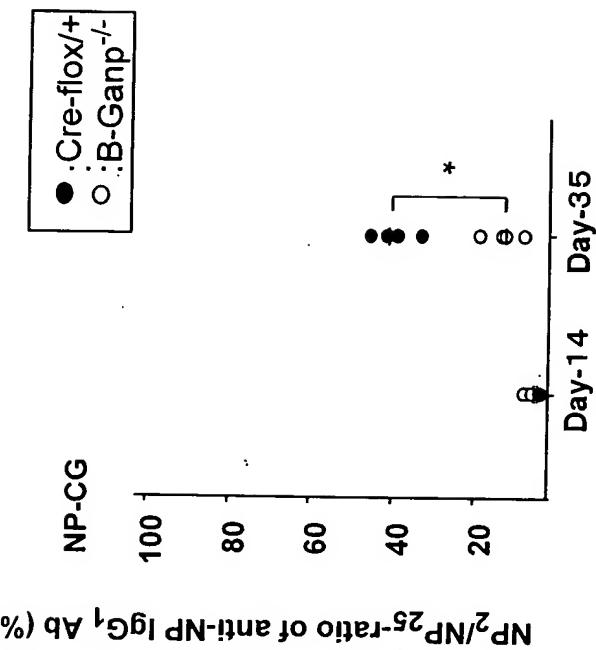


Fig. 19

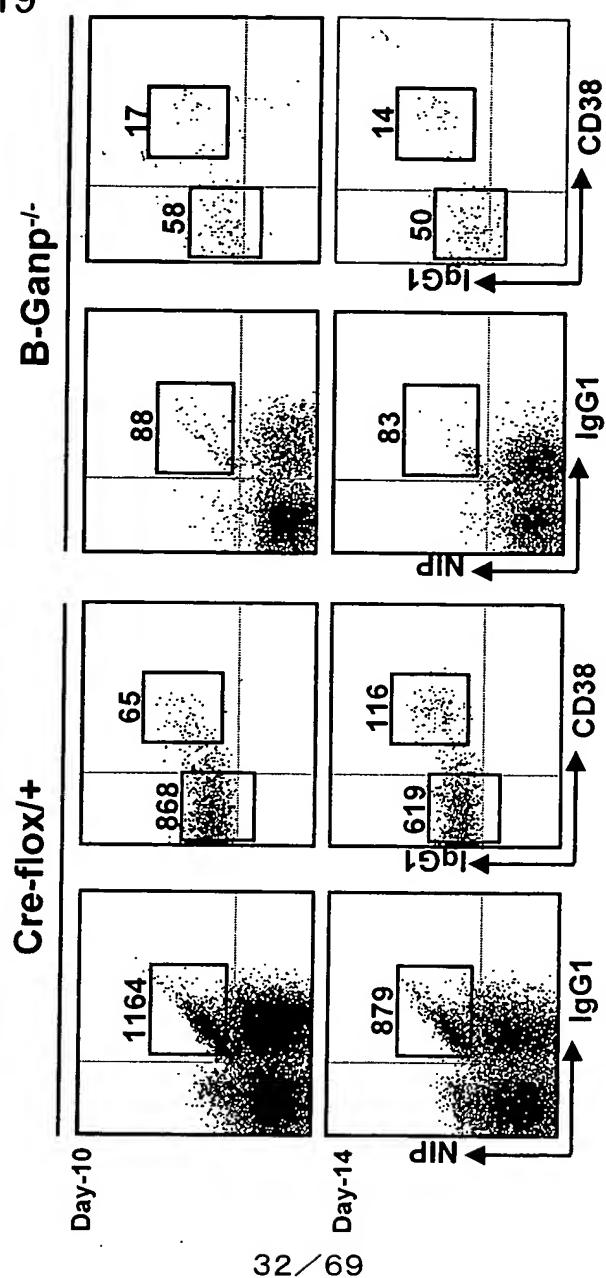


Fig. 20A

Cre-flox/+

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
	Q	V	Q	L	Q	Q	P	G	A	E	L	V	K	P	G	A	S
	CAG	GTC	CAA	CTG	CAG	CAG	CCT	GGG	GCT	GAG	CTT	GTG	AAG	CCT	GGG	GCT	TCA

1-5 ---

1-6 --- A ---

3-1 --- R ---

3-2 --- G ---

3-3 --- G ---

4-2 --- G ---

4-4 --- G ---

4-6 ---

1-8 ---

1-10 --- G ---

4-7 --- G ---

6-1 T A ---

6-2 A G ---

7-1 ---

Fig. 20B

Cre-flox/+

Fig. 20C

Cre-flox/+

36	37	38	39	40	41	42	43	44	45	46	47	48	49
W	V	K	Q	R	P	G	R	G	L	E	W	I	G
TGG	GTG	AAG	CAG	AGG	CCT	GGA	CGA	GGC	CTT	GAG	TGG	ATT	GGG

— A —

Fig. 20D

Cre-flox/+

50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
R	I	D	P	N	S	G	G	T	K	Y	N	E	K	F	K	S	K
AGG	ATT	GAT	CCT	AAT	AGT	GGT	GGT	ACT	AAG	TAC	AAT	GAG	AAG	TTC	AAG	AGC	AAG

1-5 --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1-6 --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

3-1 --- --- --- --- --- A A --- --- --- --- --- --- --- --- --- ---

D

3-2 --- --- --- TG --- --- C G G --- --- T-C --- --- ---

M S R Y

3-3 --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

4-2 --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

4-4 --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

4-6 --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---

1-8 --- --- --- A K --- --- --- --- G S --- --- ---

V T

1-10 --- G --- --- C --- --- --- --- --- --- --- --- ---

4-7 --- --- --- A D --- --- --- --- --- --- --- --- ---

T N

6-1 --- --- --- --- --- C --- --- A --- --- --- ---

S T

6-2 --- --- --- A --- --- --- --- C --- --- ---

T N

7-1 --- --- --- --- --- C --- --- A --- --- ---

Fig. 20E

Cre-flox/+

68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84
A	T	L	T	V	D	K	P	S	S	T	A	Y	M	Q	L	S
GCC	ACA	CTG	ACT	GTA	GAC	AAA	CCC	TCC	AGC	ACA	GCC	TAC	ATG	CAG	CTC	AGC

— — — T  
I  
— — — A — — —  
I  
— — — A — — —  
I  
— — — A — — —  
Q F  
C — — — T  
— — —  
N  
— — — A  
— — —  
— — — T — — —

Fig. 20F

Cre-flox/+

85	86	87	88	89	90	91	92	93	94	95	96	97	98
S	L	T	S	E	D	S	A	V	Y	Y	C	A	R
AGC	CTG	ACA	TCT	GAG	GAC	TCT	GCG	GTC	TAT	TAT	TGT	GCA	AGA

T D  
A — — — C

-G

-G

-G

Fig. 20G

**B-Gap<sup>-/-</sup>**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Q	V	Q	L	Q	Q	P	G	A	E	L	V	K	P	G	A	S
CAG	GTC	CAA	CTG	CAG	CAG	CCT	GGG	GCT	GAG	CTT	GTG	AAG	CCT	GGG	GCT	TCA

1-1 -----  
1-5 -----  
1-6 -----  
2-2 -----  
2-3 -----  
4-3 ----- A <sup>T</sup> -A -G -----  
4-4 -----  
6-1 -----  
6-2 -----  
7-1 -----  
8-1 -----  
8-2 -----  
9-1 -----  
9-3 -----  
9-4 -----

Fig. 20H

B-Ganp<sup>-/-</sup>

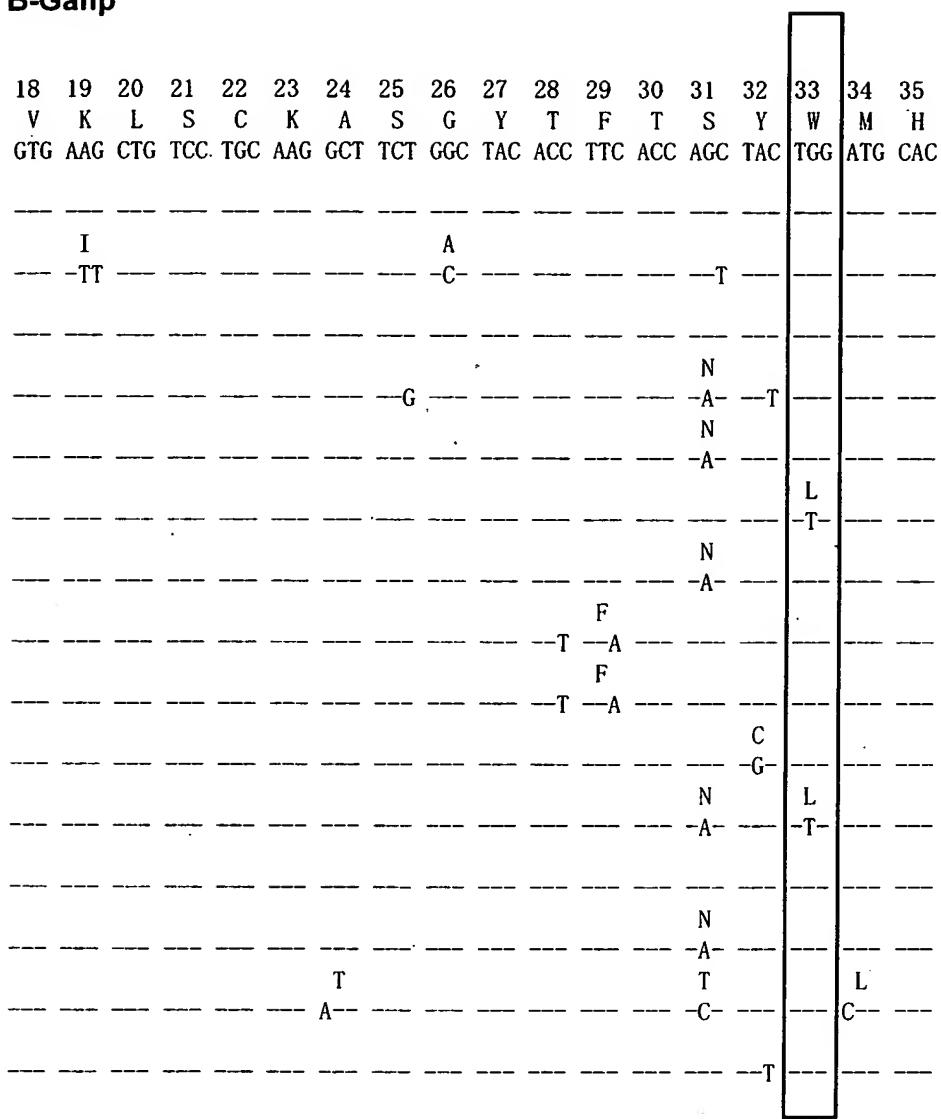


Fig. 201

B-Ganp<sup>-/-</sup>

36	37	38	39	40	41	42	43	44	45	46	47	48	49
W	V	K	Q	R	P	G	R	G	L	E	W	I	G
TGG	GTG	AAG	CAG	AGG	CCT	GGA	CGA	GGC	CTT	GAG	TGG	ATT	GGA

Fig. 20J

**B-Gap<sup>-/-</sup>**

	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
	R	I	D	P	N	S	G	G	T	K	Y	N	E	K	F	K
	AGG	ATT	GAT	CCT	AAT	AGT	GGT	GGT	ACT	AAG	TAC	AAT	GAG	AAG	TTC	AAG
1-1																
1-5																
1-6																
2-2																
2-3																
4-3																
4-4																
6-1																
6-2																
7-1																
8-1																
8-2																
9-1																
9-3																
9-4																

Fig. 20K

B-Ganp<sup>-/-</sup>

66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82
S	K	A	T	L	T	V	D	K	P	S	S	T	A	Y	M	Q
AGC	AAG	GCC	ACA	CTG	ACT	GTA	GAC	AAA	CCC	TCC	AGC	ACA	GCC	TAC	ATG	CAG

Fig. 20L

**B-Gap<sup>-/-</sup>**

83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98
L	S	S	L	T	S	E	D	S	A	V	Y	Y	C	A	R
CTC	AGC	AGC	CTG	ACA	TCT	GAG	GAC	TCT	GCG	GTC	TAT	TAT	TGT	GCA	AGA

----- C -----

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F

T-----

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Fig. 21

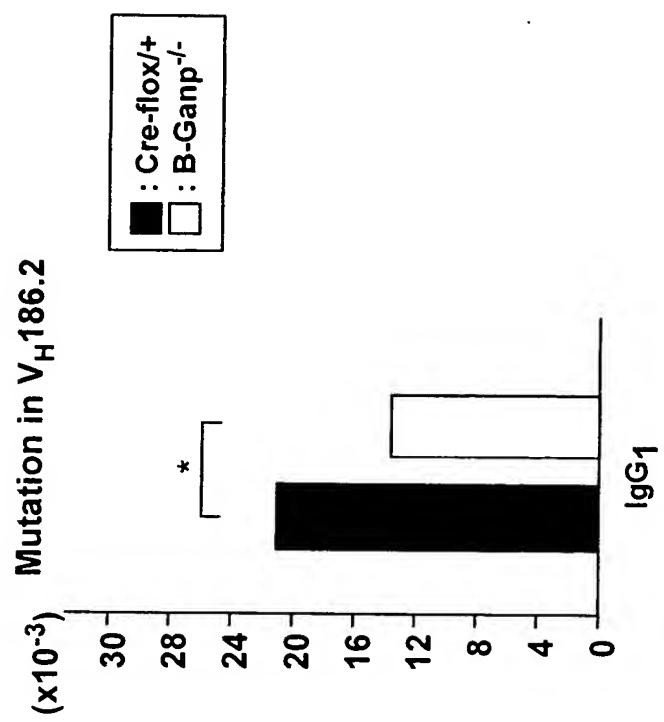


Fig. 22

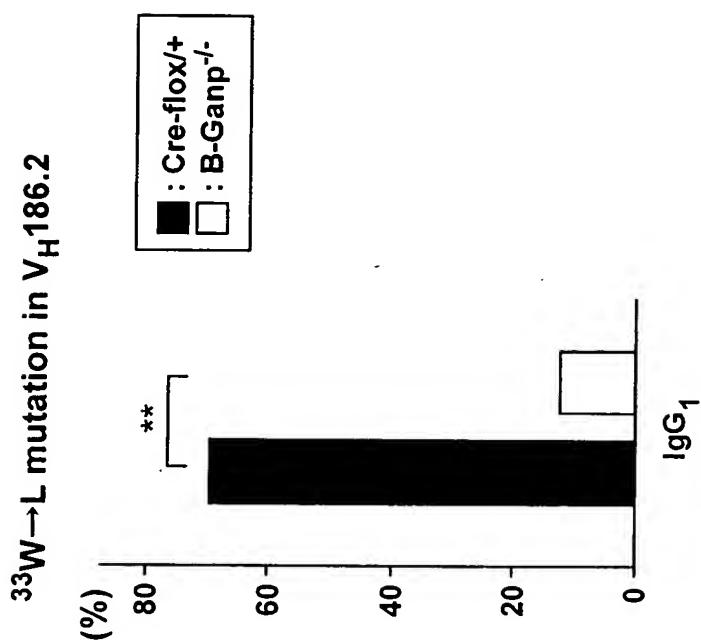


Fig. 23

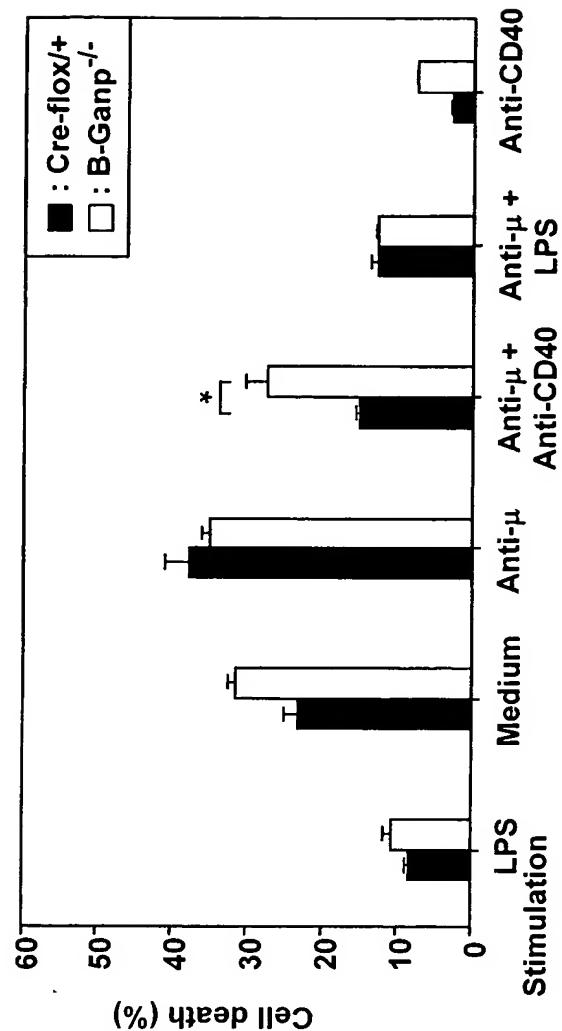


Fig. 24

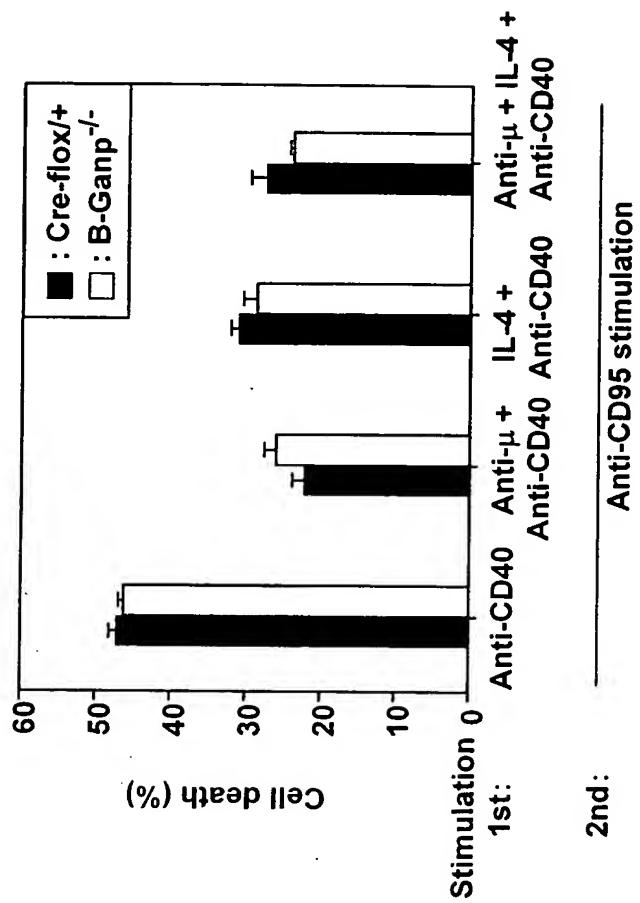


Fig. 25

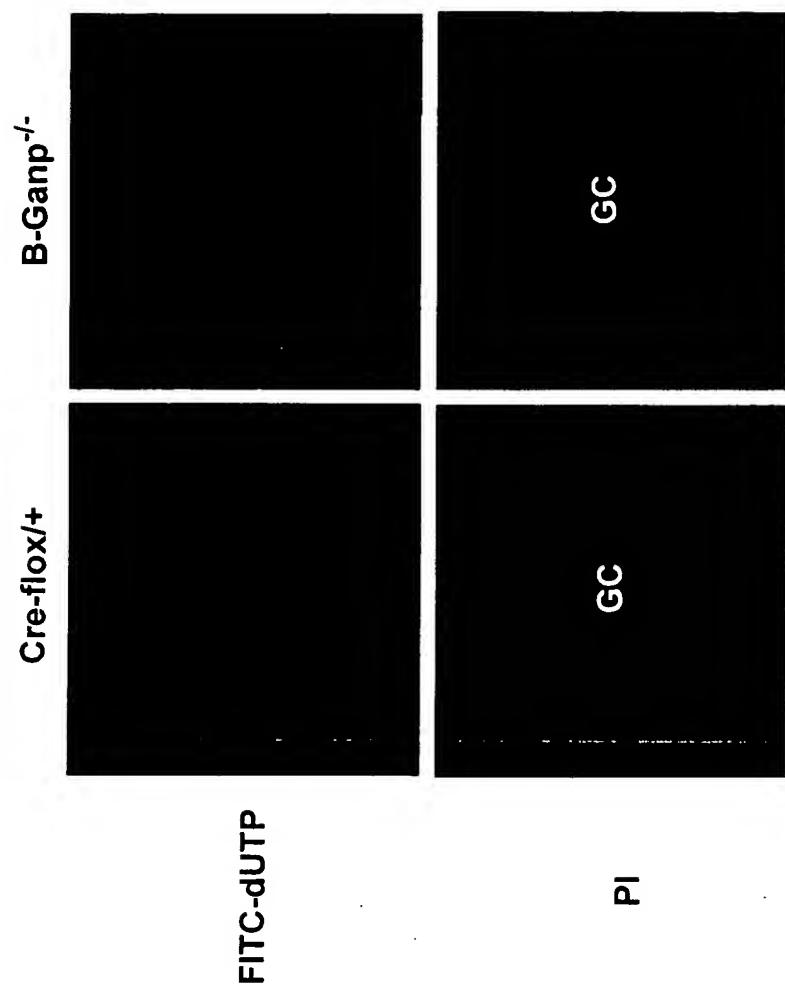


Fig. 26



Fig. 27

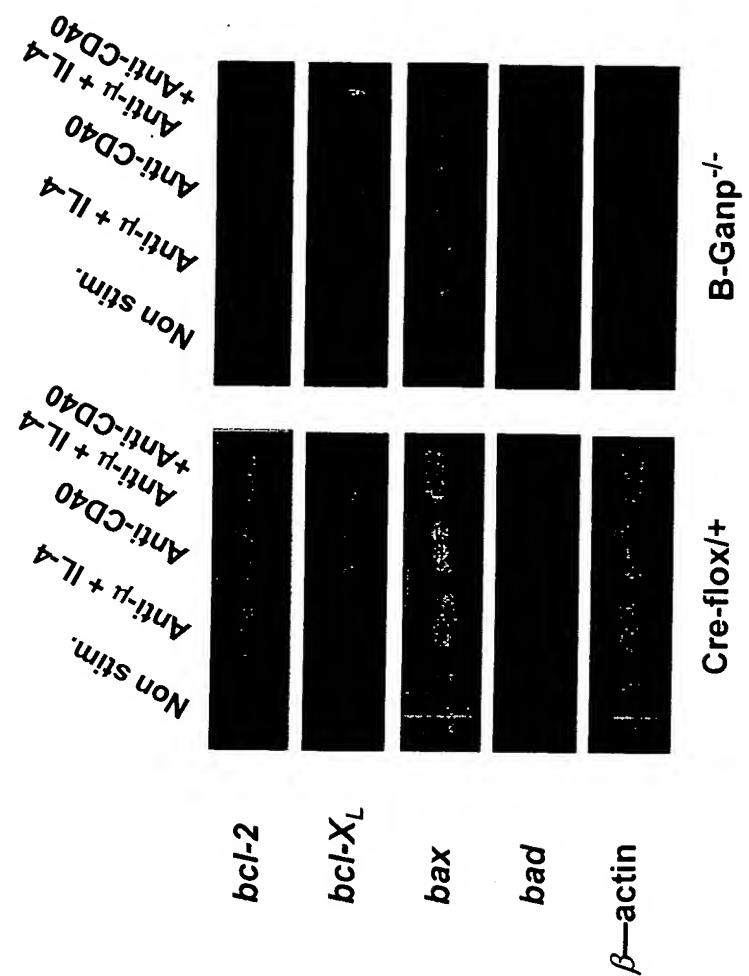


Fig. 28

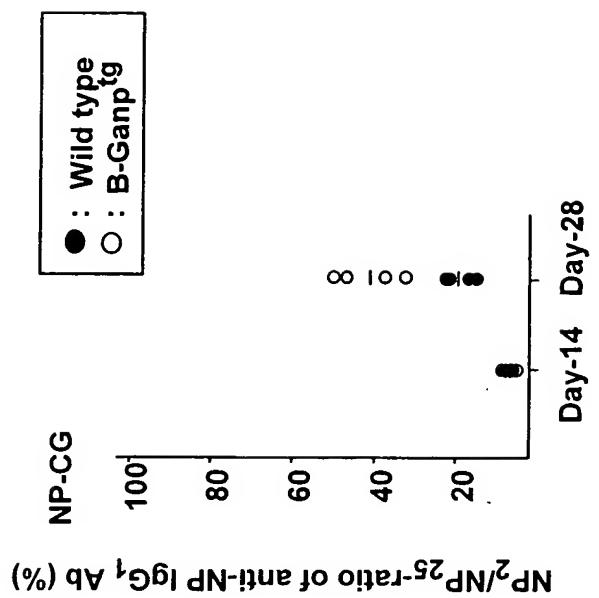


Fig. 29

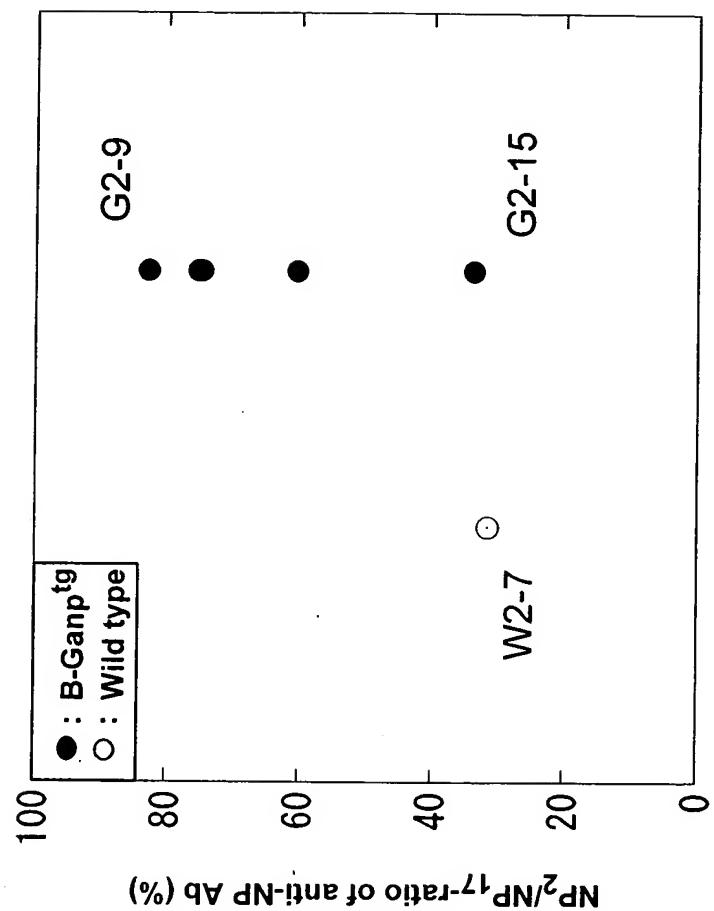
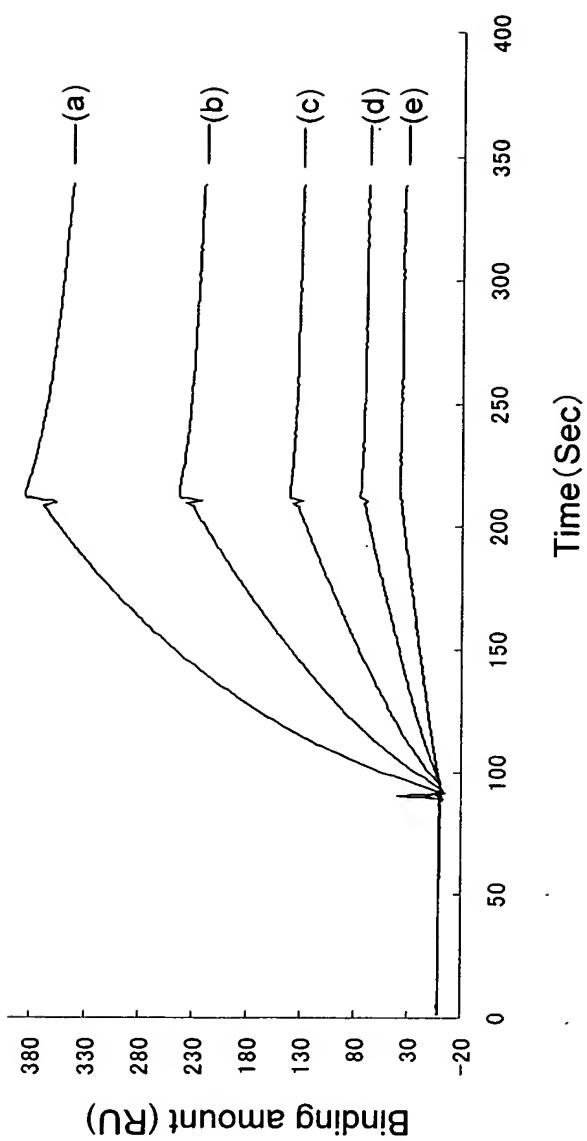


Fig. 30

BIACORE (G2-9, IgG1,  $\kappa$ )



BIACORE (G2-15, IgG1,  $\lambda$ )

Fig. 31

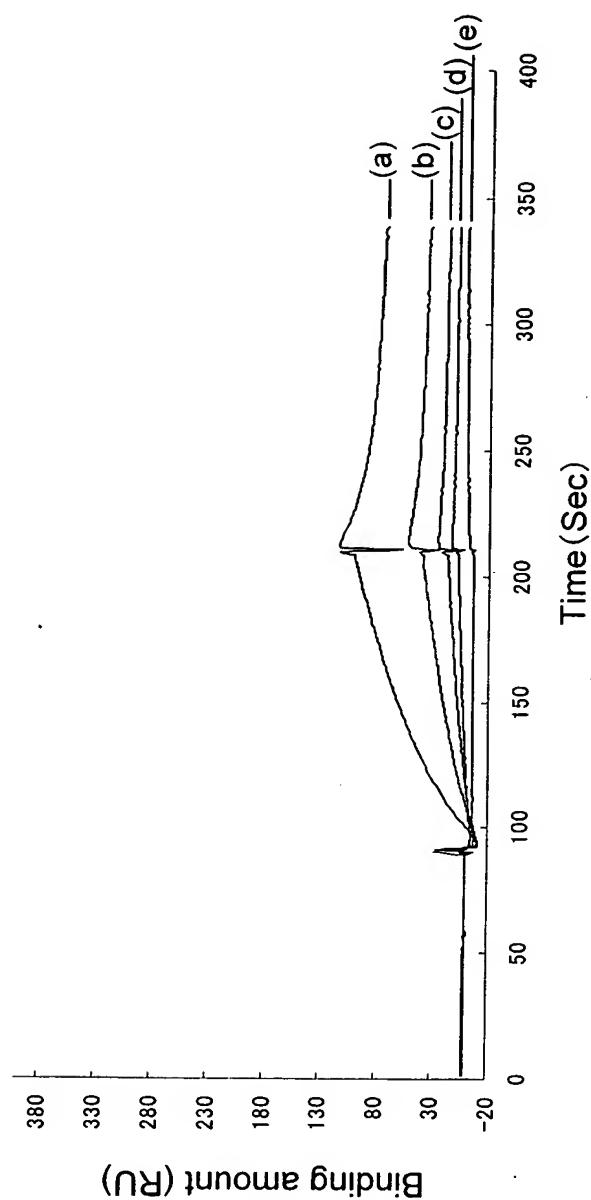


Fig. 32

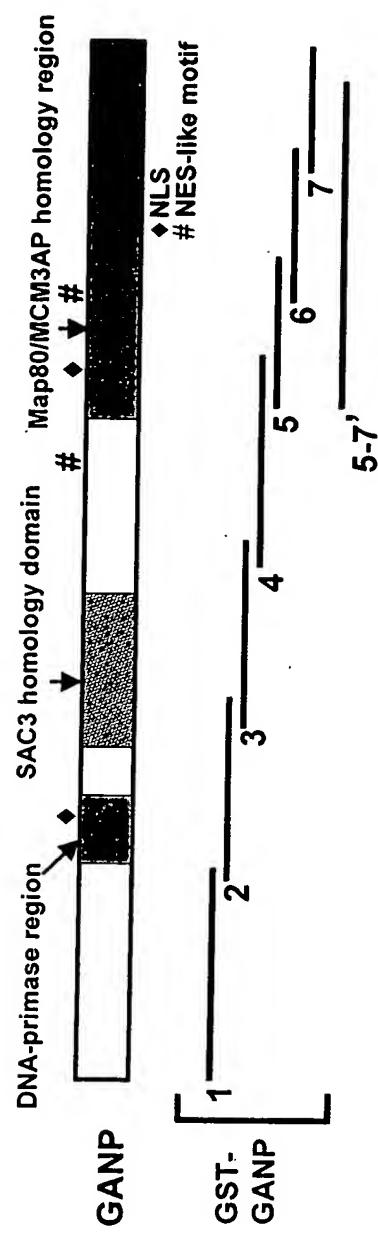


Fig. 33

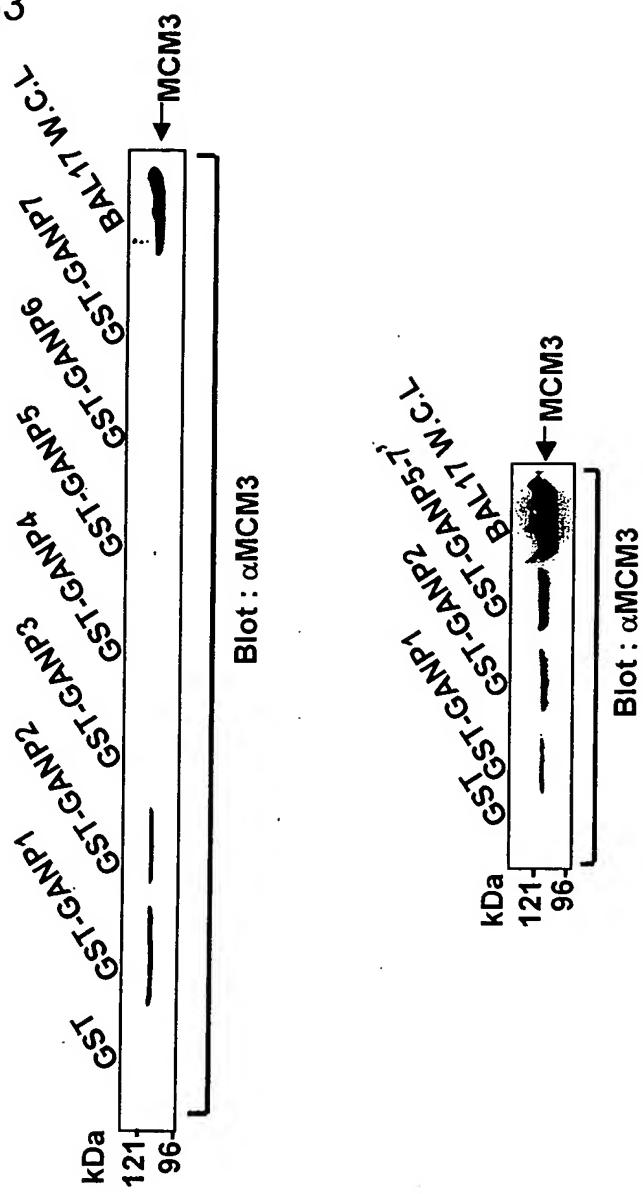


Fig. 34

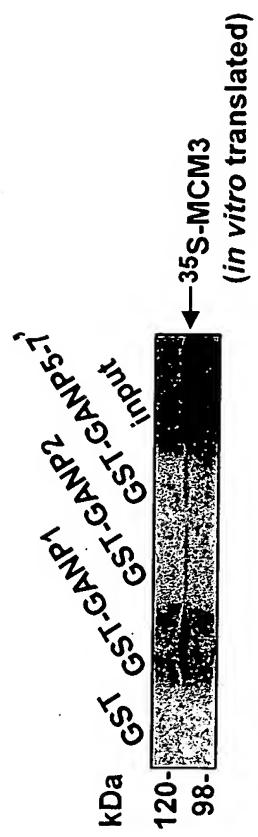


Fig. 35

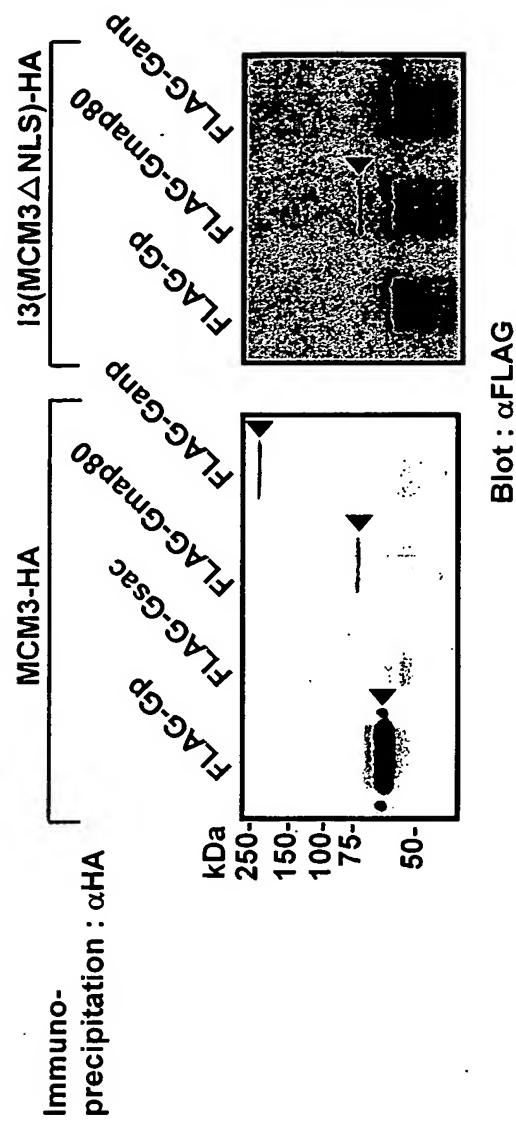


Fig. 36A

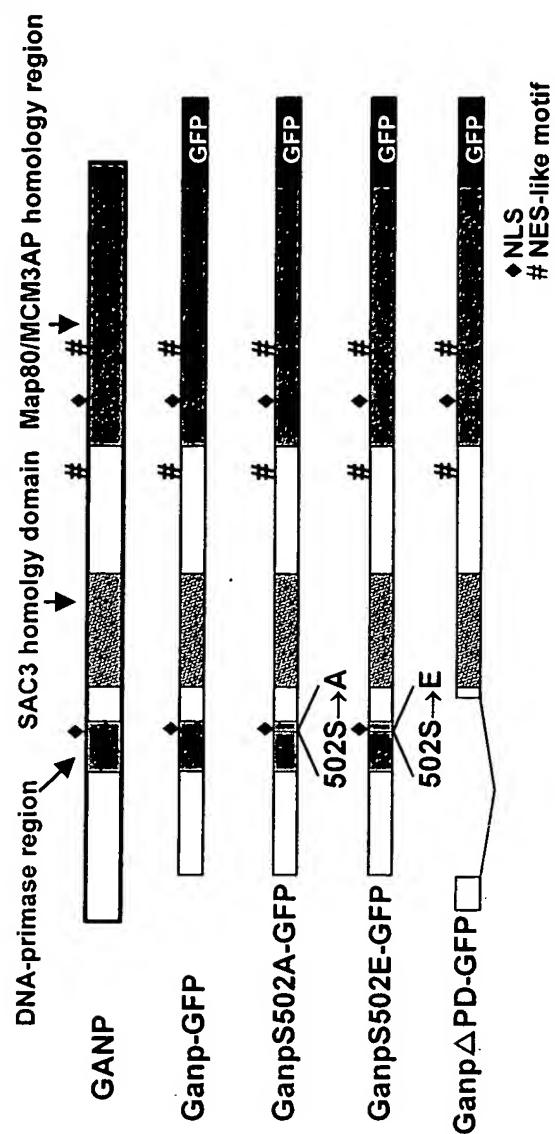


Fig. 36B

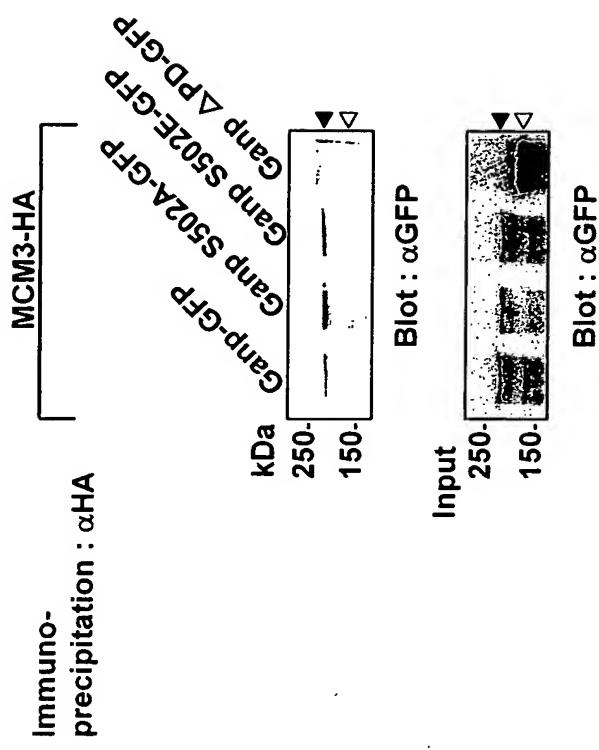
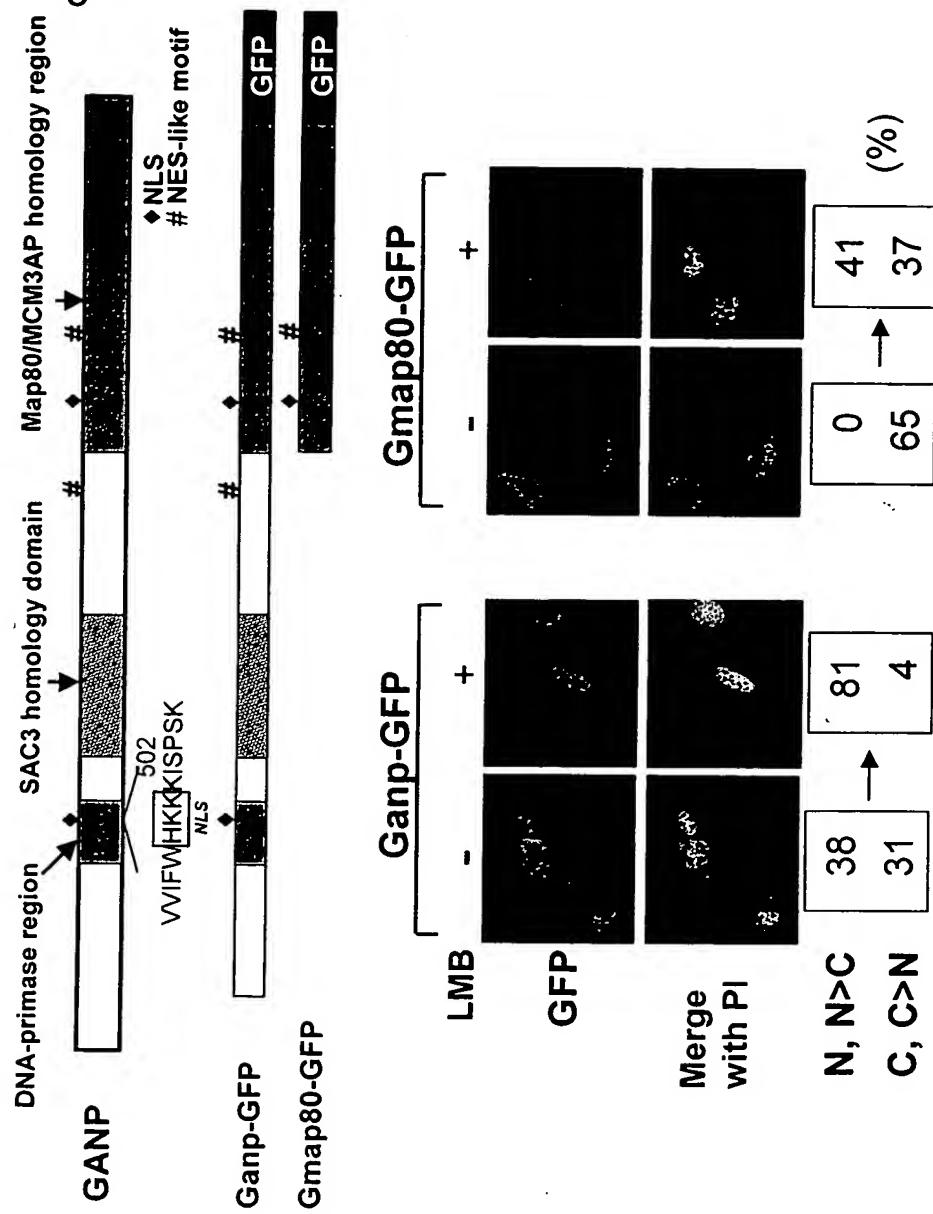


Fig. 37



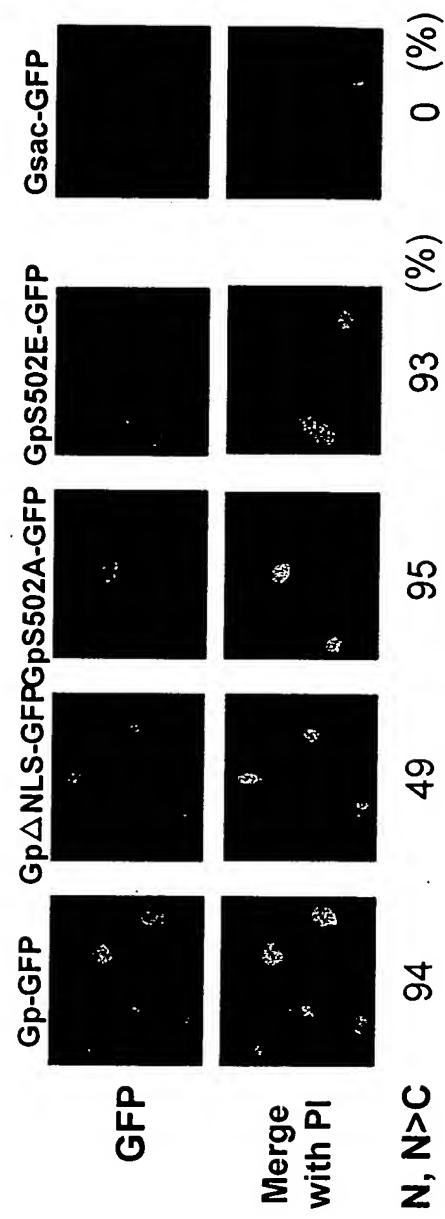
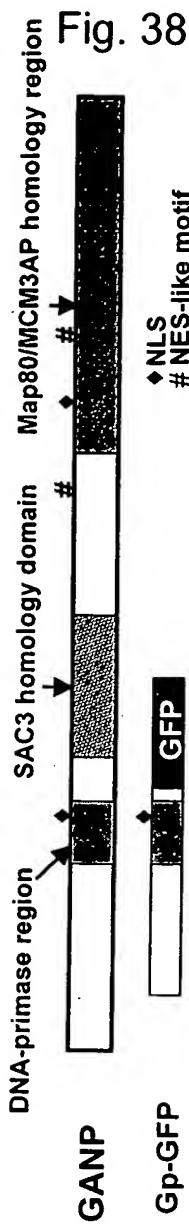


Fig. 39

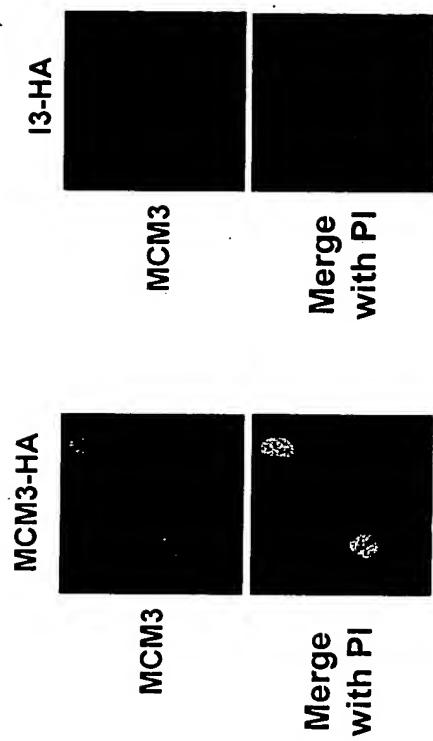
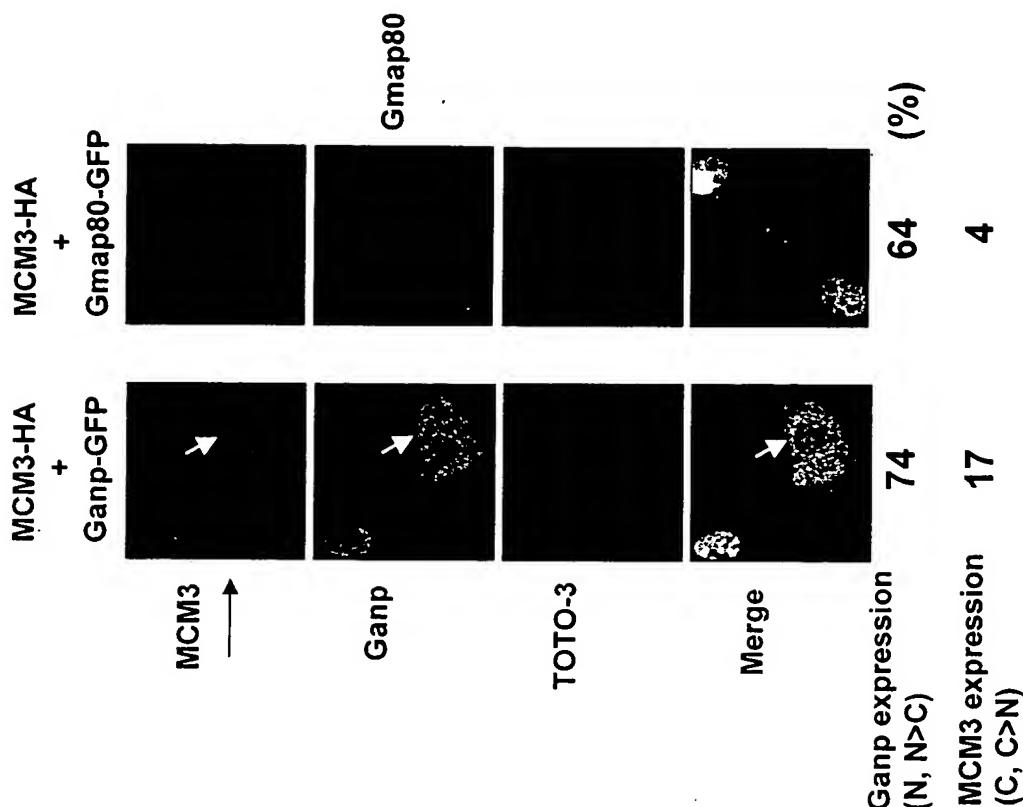
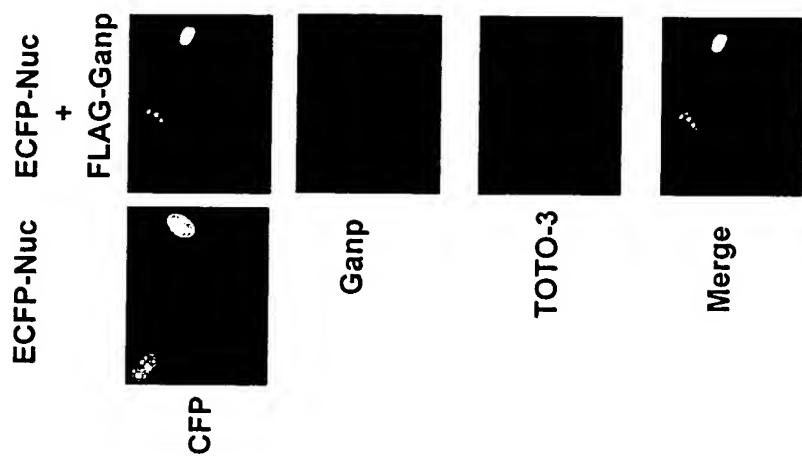


Fig. 40



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Fig. 41



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Fig. 42

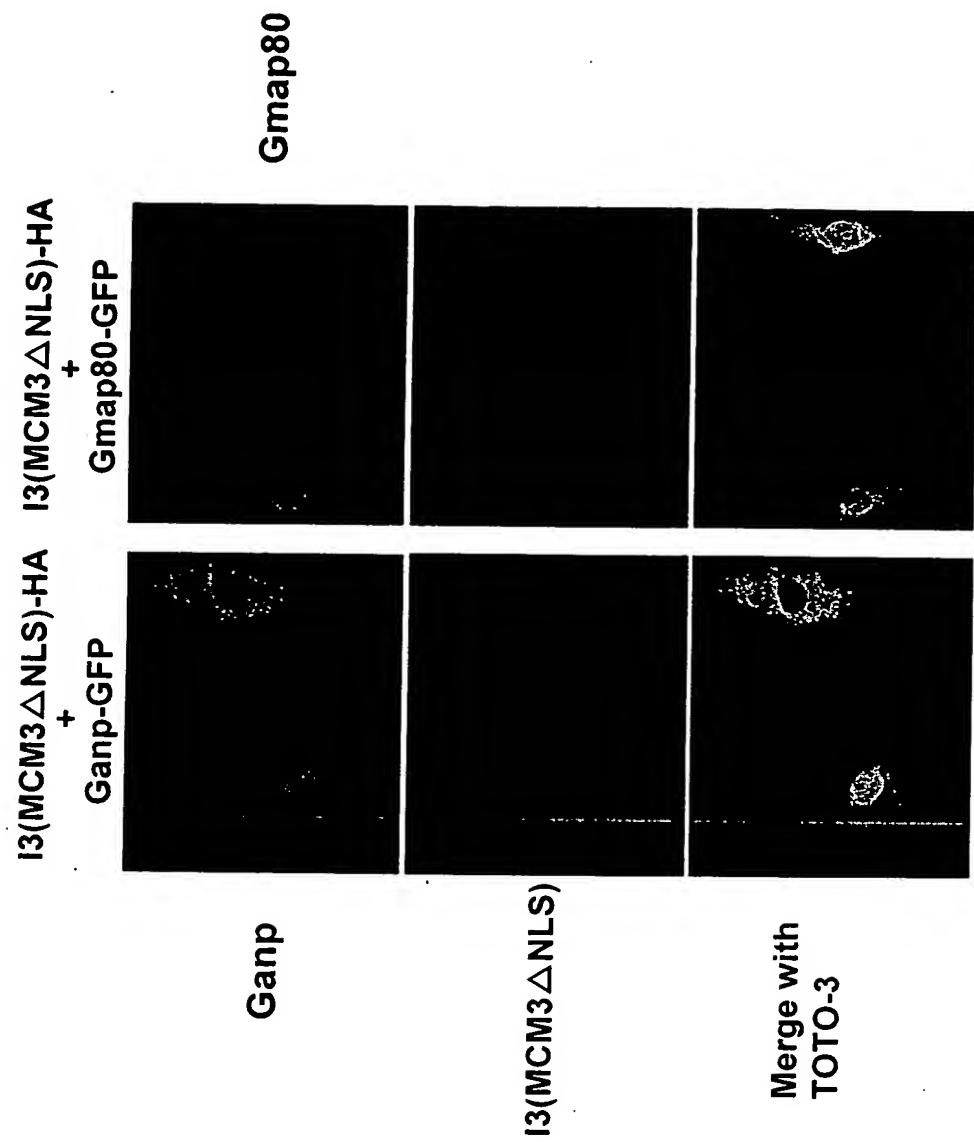
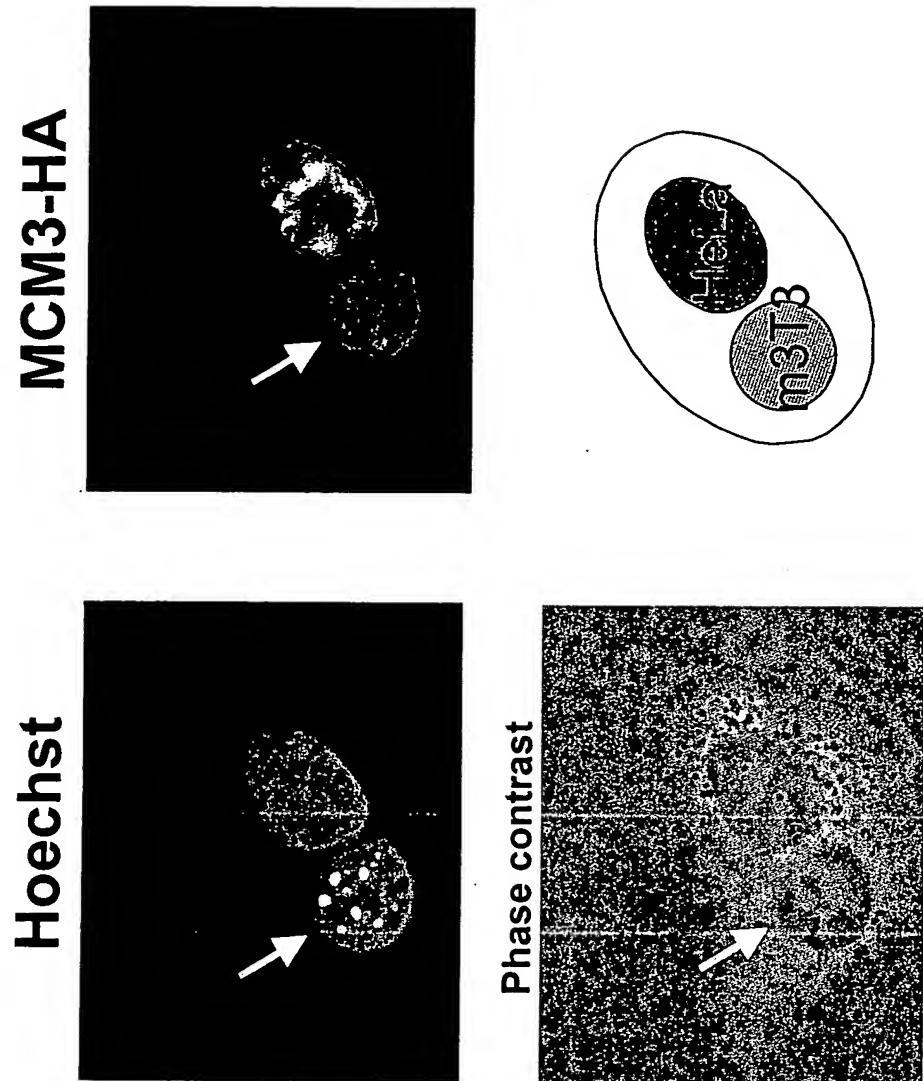


Fig. 43



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Fig. 44

